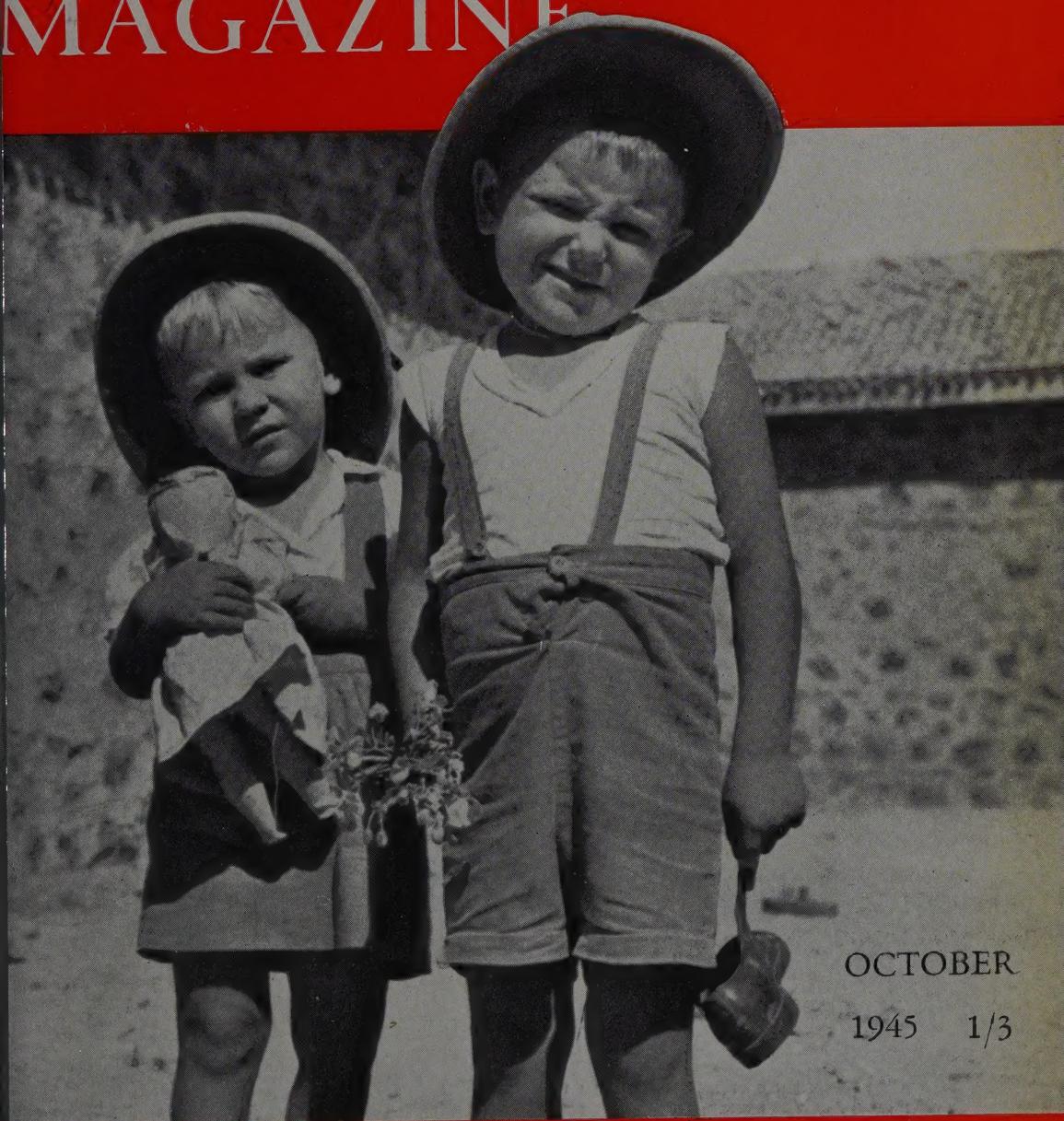


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OCTOBER

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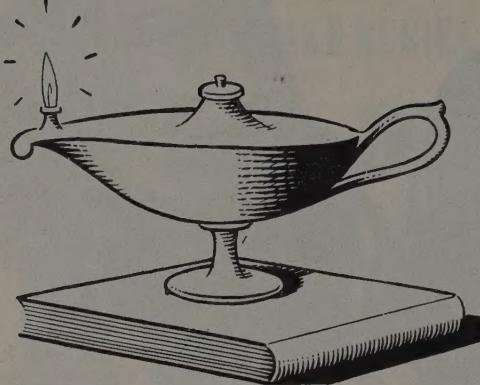
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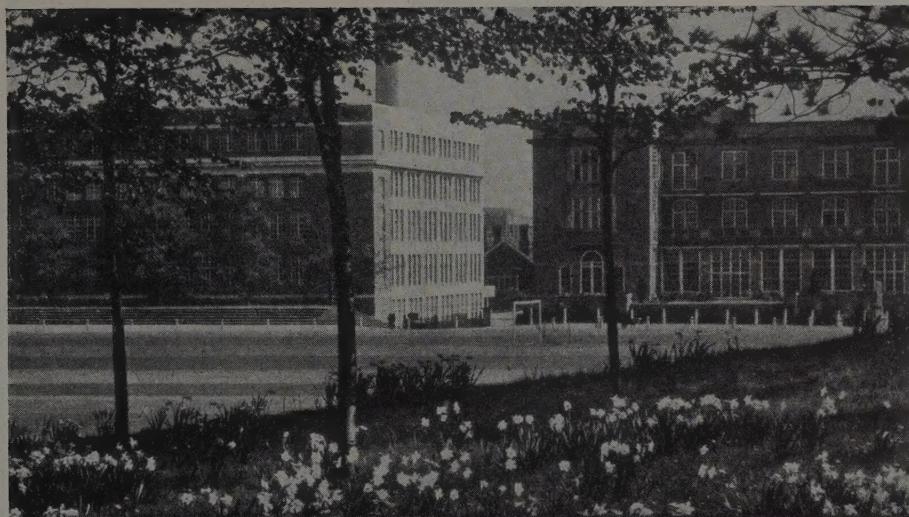
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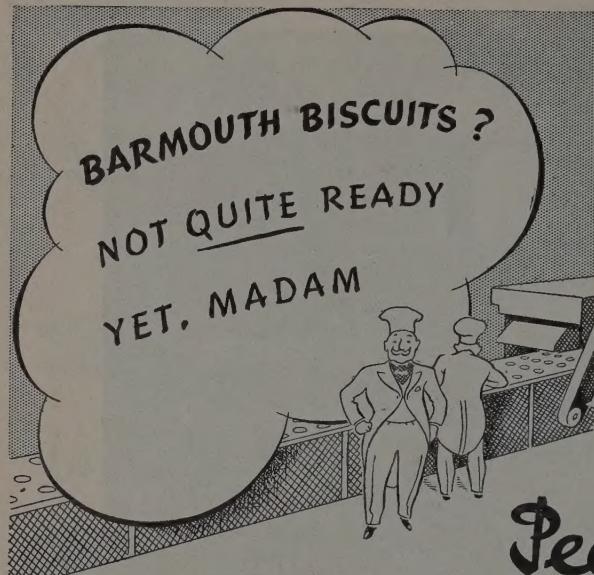
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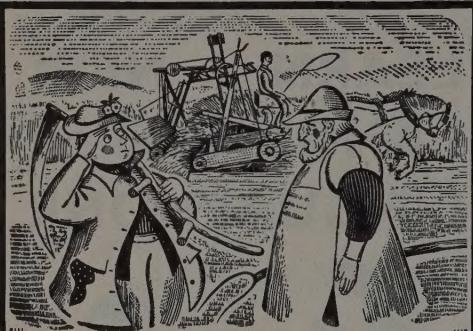
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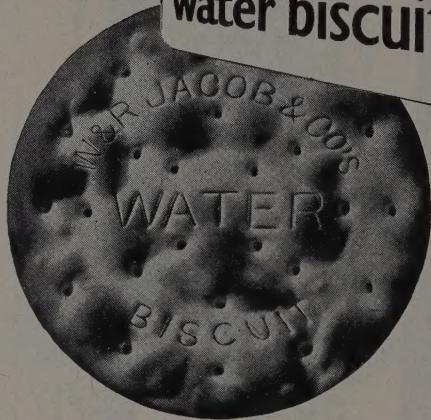
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not over in many and many
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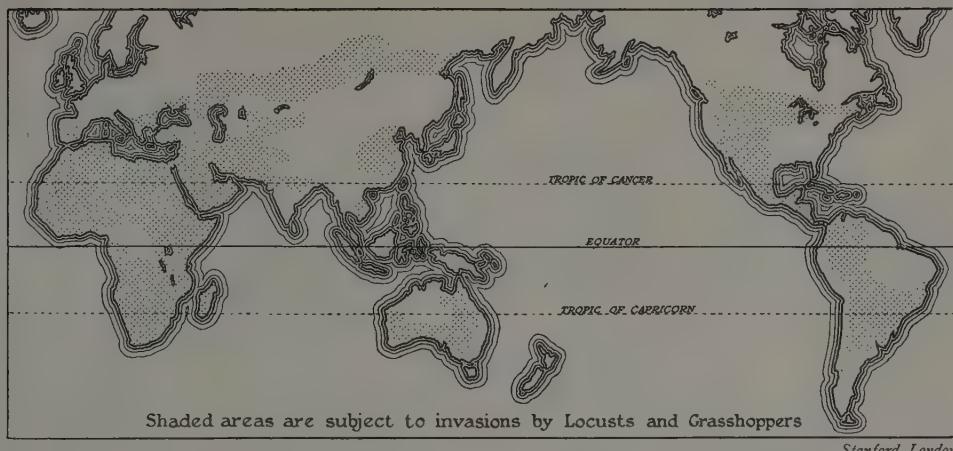
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War Against Locusts

by B. P. UVAROV, D.Sc.

In our May and August numbers Mr Bawden and Mr Davis referred to anti-locust campaigns in the Middle East; the former accompanied an expedition connected with these. Dr Uvarov, Director of the Anti-Locust Research Centre in London, explains how the war, of which such campaigns form a part, is organized and stresses the need for continued international cooperation in waging it

To most people the merry chirping in the grass on hot sunny days is just a pleasant summer noise, and some may even know that this music is produced by grasshoppers. Very few, however, realize that these musicians are the closest relatives of that old enemy of mankind—the locust; in fact, the Acridid family to which our grasshoppers belong consists of some thousands of different species, all of them strictly vegetarians and, therefore, all potentially dangerous either to wild plants or to crops. The vast majority of them live unobtrusively in fields and eat their fill without causing any appreciable damage simply because they are not numerous enough. Some species of grasshoppers, however, tend to multiply, from time to time, at a prodigious rate and to challenge man's self-awarded monopoly to the products of the earth. Where suitable crops are present, this abundant supply of choice food is naturally preferred to the coarser wild vegetation.

There are in the world about two-score

species of grasshoppers causing periodical plagues, but still worse are some half-dozen species which have earned the name of locusts. They are much larger in size than the ordinary British grasshoppers, but their main characteristic is that they occur in vast swarms which are able to fly very long distances and, therefore, often appear literally 'out of the blue' and lay waste whole countries.

Famines caused by locusts have been known in India, China and elsewhere; early colonizers of North America had to wage bitter battles against their hordes; and in Africa locusts have always been and still continue to be a serious threat to agriculture. An attempt to collect statistics on the losses due to locusts and grasshoppers made a few years ago, produced a rough figure of £15,000,000 as the *average* annual loss caused by these pests throughout the world. This figure may appear small, but it is certainly an underestimate and, in any case, it represents the value of thousands of tons of food



Dorien Leigh

A swarm of locusts may be made up of many millions of insects and may extend for 200-300 square miles. As locusts are able to fly very long distances they may descend without warning and lay waste whole countries. The picture shows a swarm settling on a plantation in East Africa

grown to feed locusts while men go short.

Man's war against locusts has been going on for hundreds, perhaps even thousands, of years, but until recently it has been no more than a series of disjointed and desperate attempts at saving, at least, some crops from destruction.

There are two main reasons accounting for this apparent invincibility of locusts. The first is that a succession of 3-5 'locust years' is usually followed by several years when swarms disappear and everyone hopes, light-heartedly but groundlessly, that they will never come again. No preparations are made to meet the next invasion which inevitably takes place sooner or later. A lack of sustained effort has always been an encouragement to locusts.

The second reason is geographical. Every

species of locusts has definite requirements as to the climate and the type of vegetation favourable to breeding in large numbers, but the region where a particular species occurs usually extends over several countries. When the locust numbers increase during outbreaks, vast swarms are formed and these roam over even wider areas, respecting no frontiers. It follows that the efforts of a single country to control locusts can never be fully successful. A species of locusts can be brought under control only if this is done simultaneously, and with equal efficiency, throughout the whole natural area. The problem, in other words, is one that cannot be solved without close international cooperation.

A regional and international approach to the solution of the locust problem was first introduced by the Government of the United



Anti-Locust Research Centre

(Left) *A fully-grown young locust (called a 'hopper' because it moves by marching and hopping) ready to transform into an adult. This is its natural size: the adult is somewhat larger and has wings.* (Above) Locust control—old style. Beating, stamping, etc. have been used against locusts from the earliest times, but with disproportionate results

Kingdom some 16 years ago when a committee was set up to organize investigations in the occurrence, migrations and means of large-scale control of locusts in Africa. At that time, our knowledge of African locusts was both scanty and vague. In fact, it was known only that three distinct species were involved, but most of the fragmentary data available referred merely to 'locusts' and the information on the habits, movements and relative importance of each species was in confusion. The first practical step was to organize a regular flow of exact information on what was happening in the various parts of the continent and which species of locust was responsible in each case. It was obviously futile to limit such investigations to British territories alone, but the cooperation of other governments was very readily offered. A

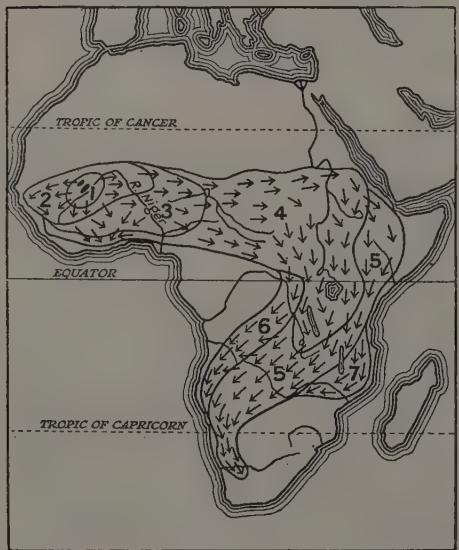
small office, later destined to develop into the Anti-Locust Research Centre, was established in London and every infested country started sending in monthly reports, in agreed form, on locust activities within its borders, clearly indicating the species, or submitting samples for identification. All such records were carefully mapped, separately for each species. Soon it became clear that each of the three African locust species has a different life-cycle and different habits, and that its migrations, however wide, tend to keep within the limits of certain natural regions. The regions of the different species may partly overlap, so that swarms of two or even three kinds of locusts may occur in the same country, and this explains the confusion that existed before the reports for each species were separated.

Recording and mapping of current locust

developments was further supplemented by collecting similar records for past years and plotting them in the same way, month by month and year by year. As a result, a picture was obtained of a gradual development of locust invasions and it became possible to suggest their original sources. This was particularly striking in the case of the African Migratory Locust, as will be seen from the map below, which shows how a locust invasion starting in one or two restricted areas may, in a few years, spread over a large portion of a continent.

When the map analysis had shown that certain areas in Africa appeared to have served as the sources of swarms, it became necessary to investigate these suspected 'outbreak areas' as they are now called, in order to find out why and how the original swarms were produced. It was already known by that time that locusts do not always occur in

The spread of swarms of the Migratory Locust during the last outbreak in Africa. The outbreak commenced in 1928 in the two centres on the Middle Niger shown in black and spread in the same year over the area numbered 1. The areas gradually invaded during each of the following years are numbered consecutively. The arrows represent only the main lines of migration, smaller seasonal movements not being shown

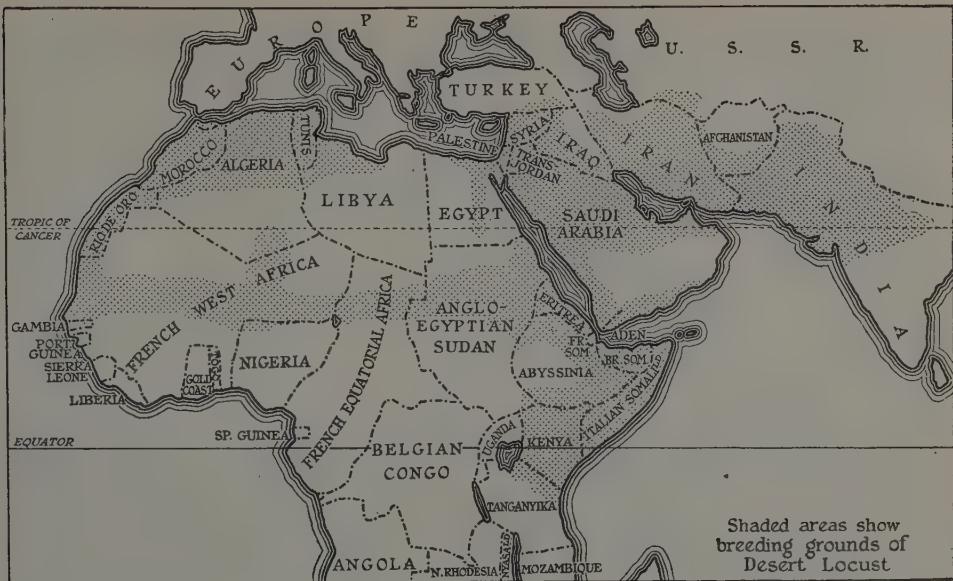


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swarms. In fact, when swarms disappear for several years, the locusts are still there, but their numbers become very small and they do not congregate together but live singly, just as grasshoppers do. Such solitary locusts even differ in colour and other external characters from the swarming locusts, and they have in the past been regarded as distinct species. Experiments proved, however, that solitary locusts, when kept in crowded cages, change their appearance and become just like swarm locusts.

The problem, then, was to see on the spot how locusts continue to live in the suspected 'outbreak areas' between invasions and what causes the transformation from solitary into swarming locusts. This problem could only be studied by special expeditions, and joint plans were laid down for explorations to be made by British, French, Belgian, Indian, Egyptian and South African entomologists in their respective areas. These field investigations took several years, during which locust research officers had to penetrate into the remote deserts of the Sahara and Arabia, to wade through the swamps of Central Africa and to live for months on end under the most trying conditions. Once a year, however, they all met together with other locust experts for an international conference, where results were compared, and deductions and further plans made. This was probably a unique example of international research, carried out with perfect cooperation, although there was no official directing body, and experts of every nationality were merely working on an agreed plan and sharing their findings with others.

By 1938 these investigations had produced some significant practical results, since it had become possible to indicate the main sources from which each of the three African locusts might emerge in swarms. This appears to happen as a result of exceptional weather conditions which may cause an abnormal increase in numbers of the 'solitary' locusts, followed by their crowding. This crowding in nature may happen in several different ways. Sometimes very high floods may drive locusts together onto a few unsubmerged islands; or else a very dry season may cause them to concentrate in a few green patches on low ground. The actual conditions of crowding in the outbreak areas are not yet fully known, but the important fact is that the very first swarms produced there are usually few and small. Therefore, if the outbreak areas are kept under constant observation by experts and if every attempt of the solitary locusts to form swarms is frustrated at once,



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there is a hope that serious outbreaks can be effectively prevented.

The idea of preventing invasions, instead of fighting huge swarms later on, appeared sufficiently sound to be given a trial. Its practical application, of course, demanded international action in order to establish permanent preventive organizations against each locust. It was only fair to advance a suggestion that the expenses in each case should be borne by all countries which might be invaded by a particular locust, but it was naturally not easy to work out details which would satisfy each of a score, or more, of countries involved. However, by 1939 it was possible to look forward to a time when all three African locusts would be covered by preventive organizations. The outbreak, not of locusts, but of the war, upset these plans, but not completely. For one locust it was possible to establish a somewhat limited preventive organization supported by the British and Belgian Governments; for another, a purely French organization was established. Both these organizations are still young and still in process of development, but they show that a first step in the right direction has been made.

With regard to the third species, the so-called Desert Locust, nothing could be done during the early stages of the war, since some of its outbreak areas are around the

Red Sea which was then in the war zone. The locusts took full advantage of the situation and by 1942 sufficiently numerous swarms were at large to constitute a serious threat to food supplies in the Middle East, and Eastern and Northern Africa. Since local food shortages in those areas would have to be supplemented by importation at a time when shipping was desperately needed elsewhere, the anti-locust campaign was accorded a very high priority, and the extensive co-operation of the military authorities was assured.

The strategy of this campaign was determined by the knowledge that the Desert Locust covers enormous distances in its seasonal migrations. Its swarms breed in desert and semi-desert regions but only during the rainy season. A swarm bred in the Sudan during the summer rains may fly across the Red Sea to lay eggs next spring in Arabia, or in other countries of the Middle East. Their progeny may partly return to Africa, partly move further east and reach India by the summer, when monsoon rains offer a new chance of breeding. Swarms from India usually move west, across Persia to Arabia, and some may even fly direct to Africa. The campaign had to be planned accordingly, so that every breeding area would be covered at the right season. In some of the countries involved in the campaign there existed local anti-locust



Anti-Locust Research Centre

Locust control—modern style. Among methods now practised, the employment of aircraft for spraying locusts with an insecticide holds great promise, but there are technical difficulties to overcome before this method can be ready for large-scale use. Experiments are, however, in progress



Anti-Locust Research Centre

Headquarters camp of the anti-locust campaign in Arabia. Motorised units roam the country killing locusts wherever they can be found. In the 1943-44 campaign units covered 2,500,000 car-miles

(Right) Scattering poison bait. This is the usual method employed at the present time for killing locusts. The bait consists of bran moistened with a weak solution of arsenic and is sprinkled very thinly over the ground. Locusts prefer the bait to vegetation and die a day or two after eating it



Ministry of Information

Anti-Locust Research Centre





Ministry of Information

British, Indian and Soviet locust officers discuss a plan of joint operations against a common enemy who respects no frontiers and consumes with impartial relish the crops grown by disunited mankind. Happily recent campaigns have been marked by a high degree of international cooperation

organizations, in others there were none and they had to be improvised. A series of regional conferences was held in 1943 at which all resources were revised and the efforts of all countries coordinated into a single plan.

The plan was based on the idea that attack is the best defence. In former days, locusts breeding in desert areas were left unmolested, but now it was decided to invade their own territory, rather than wait until they descended on crops some hundreds of miles away.

This decision meant, above all, that anti-locust operations should be extended to Arabia. The geographical position of Arabia makes it a key area of the whole campaign, since swarms produced there are a danger not

only to the 'fertile crescent' of the Middle East comprising the Nile delta, Palestine, Syria, Iraq and Iran, but also to distant India and the Soviet Republics of Middle Asia, as well as to Eastern Africa. Fortunately, that wise ruler the King Abdul Aziz Ibn Saud was quick to recognize the value of locust control to his country, where crops may be few, but all the more precious to the population. With the King's permission, small motorized parties entered Arabia in 1943 mainly for reconnaissance and to gain experience in 'desert warfare'. The results were satisfactory and in winter 1943-4 the first Arabian anti-locust campaign was launched. Military authorities were ready to help in providing transport, technical personnel, mobile repair shops, wireless, etc., and the campaign was without

precedent both in size and in scope. Huge motorized convoys of over 350 vehicles and nearly one thousand unarmed troops entered the country from two sides and then split up into several detachments. The expert direction of operations was in the hands of ten locust officers of six nationalities—British, American, Egyptian, Indian, Sudanese and Palestinian. King Ibn Saud's government provided guides, whose main duty was liaison with local Saudi-Arabian authorities. Extensive reconnaissance was carried out over vast regions, some never crossed by motor-car before. It was found that locust hoppers occurred intermittently over an area of some 50,000 square miles, and 1200 tons of poison bait were scattered with a most telling effect.

Great anxiety was felt at the beginning of the Arabian campaign about the attitude of the population, who were accustomed to regard locusts, with true Eastern passivity, as a punishment sent by Allah, and who therefore never ventured to defend themselves. However, when they saw that the columns of hoppers moving towards their cherished crops were wiped out by poison bait before reaching them, the old superstitious dread was broken. The King and the Saudi Arabian authorities were greatly impressed, and the campaign undoubtedly served to inspire confidence in the British Anti-Locust Missions. It also served to reduce very substantially the number of swarms escaping from Arabia in the spring of 1944, and none of the countries in the north experienced an invasion that year. A most valuable result of the campaign was the experience gained in this type of desert warfare. This experience was fully taken into account in planning another Arabian campaign for the winter 1944-5, when it was hoped to achieve a complete success. An acute shortage of transport, however, made it impossible for the military authorities to provide all that was required and the new campaign had to be re-planned on a limited basis. In spite of this, and although the infestation proved greatly in excess of estimates, the results were again good. A particularly interesting feature of this campaign was the large percentage of Saudi-Arabs who took part in it not only as guides and labourers but also as drivers of cars, supervisors of labour gangs and even mechanics. Relations with local authorities and the population were now established on a firm basis.

In the meantime similar campaigns, some on an even vaster scale, were carried out in India, Anglo-Egyptian Sudan, former Italian Territories in East Africa, Abyssinia, Kenya,

Tanganyika Territory and in French North and West Africa. The plans for all these campaigns were as closely coordinated as possible and the Allied military, air, supply and transport authorities have all contributed to the common effort made by the countries themselves. Particular mention might be made of the Kenya campaigns which overshadowed by their magnitude even the Arabian ones. Here, control operations also had to be carried into 'enemy' territory, the vast and sparsely inhabited Northern Frontier District and the Turkana desert. Roads had to be built before the supplies could be moved, and in each campaign up to 300 or 400 motor vehicles and thousands of troops had to be employed.

The anti-locust intelligence service, of course, had to be greatly developed in order to enable the 'general staff' not merely to follow movements of the enemy forces, but to forecast them well in time. Movements of locust swarms and their breeding are being regularly reported by wireless and air to London from all the affected countries. These data are at once plotted on large-scale maps, closely analysed by experts and compared with standard maps of seasonal movements based on similar data for the past years. In this way, forecasts of further developments are prepared and cabled out every month to the threatened countries. Although there is a considerable regularity in the seasonal movements of swarms, unusual weather causes many surprises and, therefore, locust forecasts are still only approximate. However, during these last three years, no country has suffered an invasion without having received an adequate warning. The locusts no longer come as an unheralded calamity, and preparations to meet them can always be made well in time.

Man's struggle against locusts is nearing its peak and the outcome of the present campaign still hangs in the balance. It is clear, however, that the road to success has been found in unity of effort. As in war, it has proved possible to achieve international unity in times of acute danger. If the present spirit of unity against the common enemy is maintained and translated into a lasting and practical international effort directed to prevent outbreaks, the time may come when locust plagues and anti-locust campaigns will be relegated to history. If, however, the old passive attitude and lack of unity persists, there may be a real danger to schemes for increasing agricultural production which are now being put forward in many parts of the world.

Singing Wood

by B. L. COOMBES

IN the first year of this war I lost an intimate friend, one that could charm my depressions and make my spirits sparkle in a few minutes; would sing or remain silent—just as my mood desired. This was no human intimate, but a creation of selected and well-shaped wood—a violin. After its loss I was despondent for many months. To the experienced player his instrument becomes part of his being. He knows the weakness and the strength and how it will respond to his handling. For most good violinists there is only one instrument that suits him exactly; sometimes he uses a deal of his lifetime seeking this ideal. I had found mine, had become attuned to its voice, then it had been shattered.

I could not escape from the memory of my loss. A melody would come from the radio set; some tune we had enjoyed together. Sometimes, while passing other homes, familiar music would surge out to remind me of past days and my fingers would feel for the strings that had vanished. Finally I decided that empty place must be filled again. No factory-shaped or mass-produced violin would soothe me. I wanted one shaped for my hands and pleasing to the eye—like the lost one. I went to an old friend who has music in his veins and wishes for nothing better than to create a good violin and see that a skilled player uses it well. Such a man was J. T. Noble living at Resolven in this Neath

Valley and working at his craft among the grey drabness of a Glamorgan mining village.

We discussed this new violin, intensely. The wood? Yes, he had a rough piece of sycamore which would work out nicely for the back. Hard wood there to throw out the sound. Then the front? We wanted a softer wood with a reedy grain so that the notes could vibrate. Years ago he had sent to Italy for the pine, but that was not possible now. He felt that the sweetness of the old Italian violins was caused by the climate giving an individual tone to the trees. Trees have voices, without doubt. The wind stirs their song while they live, and even when they are sent to the black tomb of the mine as pit-props they protest against the crushing weight in different kinds of voices. That is why miners prefer the fir with its sustained crackle of protest as it splits, and fear the oak which gives but one sharp snap of surrender.

Then he remembered a block of Oregon pine which had once been part of a warship. With generations of seasoning it would surely be ideal and we outlined the front with a stump of charcoal. If it was the weighting of those old makers we could copy them in that; so we checked their measurements and weights, then kept that list handy. If it was their varnishings—Mr Noble is a chemist and the preparation of a fine old varnish was his special pride.

Soon the smell of shaven wood pleased our senses. Slowly the back was shaped and thinned from that rough piece of sycamore. When the scales and calipers had given their verdict it was hung on the wall while the front was shaped, the F holes cut, and the purfling worked into the faint groove around the sides. Such delicate work this, needing dexterous fingers and a steady hand. The neck was important, for it must be shaped so that the space between thumb and first finger could glide up and down



(Opposite) A rough piece of sycamore suitable for the back of the violin. A hard wood is necessary in order to throw out the sound

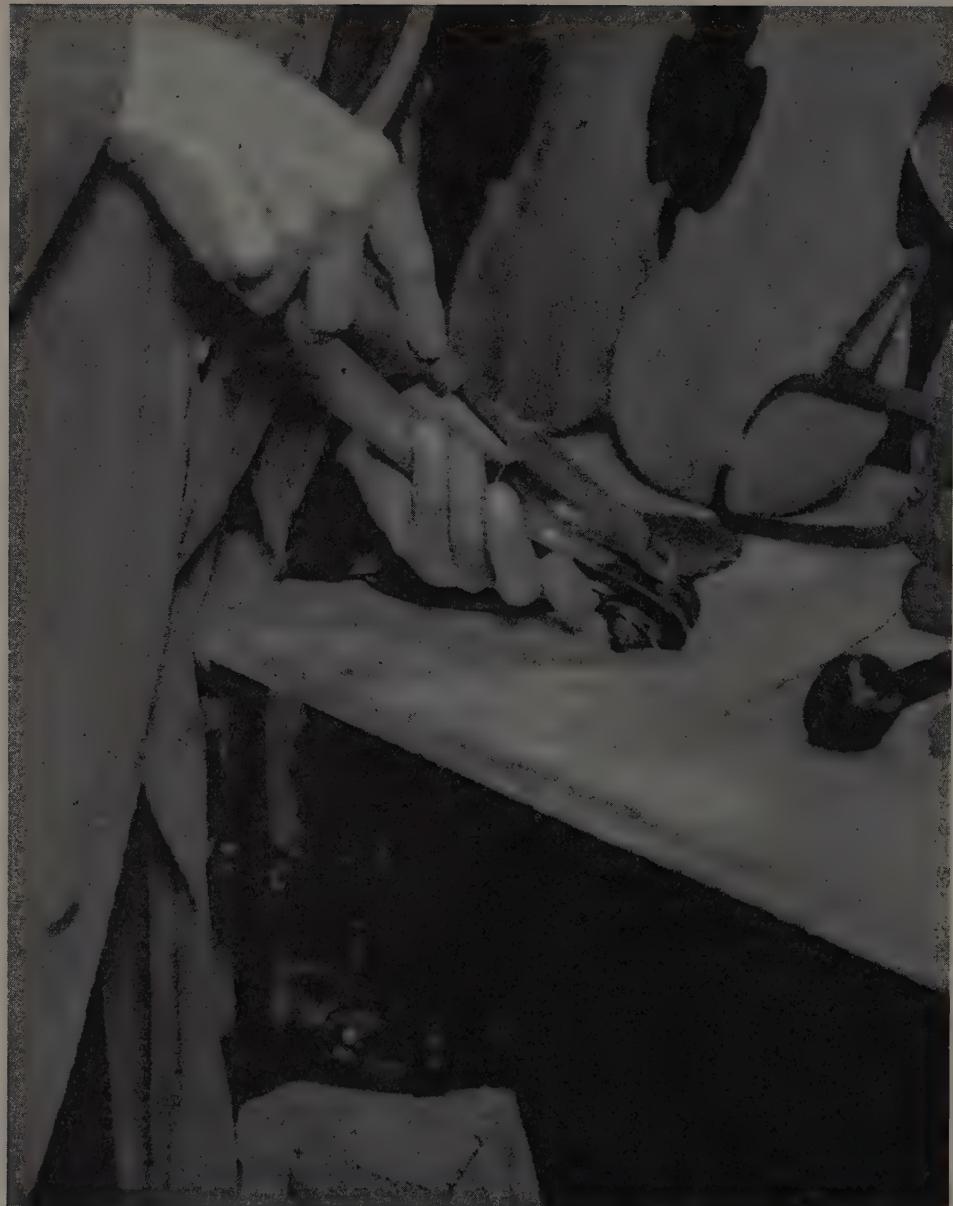
(Right) Softer wood is needed for the front so that the notes can vibrate. This piece of Oregon pine was once part of a warship

(Below) When all the parts of the violin have been carefully prepared, they are placed in the mould, glued together and left until secure



All Photographs by Idris Cole





The neck is important; it must be so shaped that the player's hand may glide up and down easily

without any restriction. Then finger-board, sound-post, corner pieces, ribs and sides, tail button, were all carefully chosen and adjusted before being glued together, fixed into the

clamps and mould, then left for a while. A few words tell you of all this but many weeks of our spare time went in the careful shaping and preparing.

White and fragile as a newly born babe it lay in its mould and we watched it with the anxiety of young parents. It certainly looked all right, but what sort of a voice would it have? If this perfect form could only produce a croaking voice all our work would have been vain. When the glue was safely dried came the time for varnishing. The colour had been debated. Should it be light brown?—so many cheap violins had that colour. Light amber then?—too showy. Why not a very dark brown, almost chocolate? That seemed a good ageing colour and we agreed about it. So very gently, over that white body, went about a dozen sticky coats, changing its cold nakedness into brown warmth like a human body bronzed by the sun.

Weeks later, when it was well dried, we fitted a special bridge—sandpapering it until it stood in exact line with the finger-board. The tuning pegs were fitted to perfection, the tailpiece was hooked on, and between them we strained some old and well-tried strings. It was complete now, ready for the test. We had a silk cover to keep it warm and a wooden case to shield it from the rough world. We had given it every chance; how would it repay? What sort of a song would it sing?

Tenderly we tried the bow across the strings, waiting for the sound with our heads turned sideways. Yes. It responded well. Our infant had a voice; a singing voice. We were indeed proud parents. Not one note came out falsely even when our questing fingers sought for the harmonics or flute notes; or asked for an added response in the double stopping passages. We had asked for a great deal . . . we wanted the rich deepness of a violoncello in the lower notes, the thrill of a nightingale on the higher registers, and our creation responded. We were proud and satisfied men that night. We wanted one more test, so one night we got into a large concert hall, then empty. One light shone on the violin and its player, solitary on the wide platform. Away in the gallery a small group waited. When the last notes of Raff's Cavatina throbbed clear across that building the claps of half a dozen enthusiasts went back to the platform. It had won the first ovation and its voice would carry across the distance.

It needs time now—that is all—to mature its song and mould itself to the nature of the hands which caress it. The old friend has been shattered but perhaps this new one will mature in a kinder world.



Testing the tone of the instrument. The maker listens critically as the bow crosses the strings



All Photographs by the Author

Mount Columbia, 12,294 ft. Troops under training made the first winter ascent of this magnificent mountain, largely on ski, by way of the snow slopes to the left

Ski-ing in the Canadian Rockies

by F. S. SMYTHE

SPEEDY and increasingly economic travel will play a great part in the opening up of new holiday grounds to the peoples of the British Commonwealth, and the time is not far distant when those with but a short vacation will turn their thoughts as far afield as Western Canada, the Himalayas and New Zealand. Already Service aircraft have flown overnight from Britain to Alberta, and vast areas, many of them unmapped and untrdden, of the Canadian Rockies, the Selkirks, the Coast Range of British Columbia and the labyrinthine mountains, lakes, forests, fjords and glaciers extending northwards into the Yukon and Alaska await the mountaineer, ski-er, naturalist and artist.

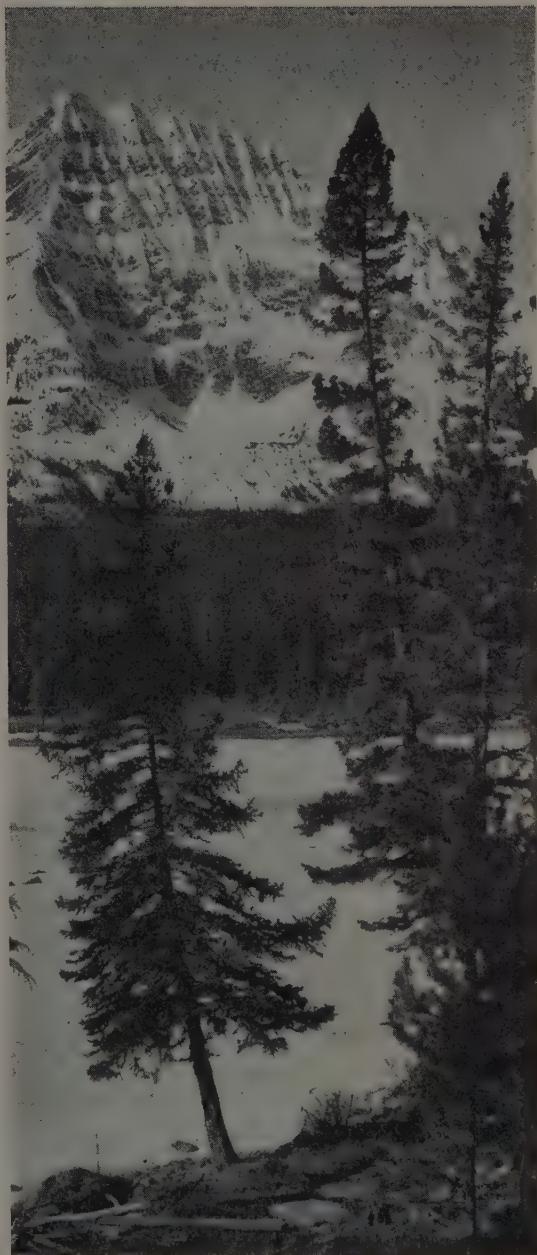
Among the greater areas already accessible to the tourist is that between the Canadian Pacific and Canadian National railroads which cross the Divide of the Rockies by the Kicking Horse and Yellowhead passes. This area, some 150 miles in extent from north to south, and comprising some 20,000 square miles of the finest mountain, lake and forest country in the Dominion, has been set aside as a National Parkland and so protected for ever from commercial exploitation and the indiscriminate slaughter of its many species of animals and birds. It has for administrative purposes been subdivided into several areas, principal among which are the Banff and Jasper National Parks.

The small towns of Banff and Jasper, on the Canadian Pacific and Canadian National Railways respectively, are some 165 miles apart and were formerly linked by the roughest of trails, the sole alternative being a journey by road and rail of about 500 miles. Some years before the war it was decided to drive a motor road, which with its many turns would be over 200 miles in length, through the heart of the two parks close to and roughly parallel with the Divide. This

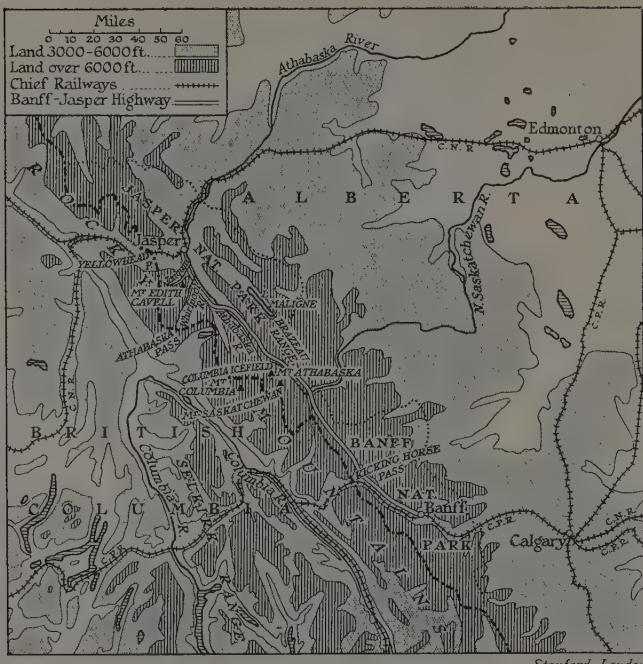
formidable task was completed by the outbreak of the present war and the road opened in 1940. Had the opening occurred at any other time it would have occasioned worldwide remark, since not only was the construction a feat of skilful and resolute engineering but the road is scenically to be numbered among the great mountain roads of the world, comparable with the classic Alpine highways and of considerably greater length.

The hard work required to force a passage through scores of miles of primeval forest was accomplished before the days of the giant bulldozers that drove the Alaskan Highway. It has been built across muskeg (swamp), and hewn through rocky canyons; it winds sinuously over passes and spans swiftly flowing glacial rivers. Yet the scenery it reveals and its potentialities for the holiday-maker, the mountaineer, ski-er and camper more than justify an expense at which richer and less farsighted governments might well have boggled. From every turn of this magnificent highway there are vistas of high peaks, white, grey, brown and red in the ever-beautiful limestone or mantled with eternal snow, many of them as yet untrodden. There are lakes of intense blue to reflect the glories of forest, crag and snow; and glaciers crawl dragon-like into the dark ranks of pine to send their waters flowing smoothly and swiftly along the wide valley floors or tumultuously between the sheer walls of limestone gorges. The road passes close to the Athabasca Glacier and the Columbia Icefield, in which the North Saskatchewan and Athabasca rivers have their source, to flow thenceforward their separate ways towards the Atlantic and Arctic Oceans, while to the west the icefield feeds the Columbia River on its way to the Pacific Ocean. And as he rolls towards Jasper down the Athabasca Valley between close-packed ranks of lodgepole pines the traveller may reflect how in 1811 David Thompson struggled up the valley and, unaware of the comparatively easy Yellowhead Pass, forced his way along the Whirlpool River and over the Rockies by the Athabasca Pass. In his journal Thompson lamented the loss of a bag of musket balls, a serious deprivation in a country of hostile Indians. This bag was discovered but a few years ago near the pass.

In 1943 the War Office decided that a unit should be trained in mountain and ski warfare. The Lovat Scouts, a famous Scots regiment with a strong core of hardy Highlanders—gillies, stalkers, shepherds and the like—was detailed for this. As Chief Instructor of the training team I arrived in



The Athabasca River from the Jasper-Banff road, about 30 miles south of Jasper. Beyond the wide forest-clad valley rises a limestone peak of the Fryatt Range



North America in September as a member of a military mission under the command of Brigadier C. N. Barclay, D.S.O., to assist in the selection of a suitable training area, the formation of a training team numbering nearly 100 Instructors (of which 86 were Canadian ski-ers and mountaineers, the remainder being British and Americans) and the supply of special U.S. Army clothing and equipment.

The area chosen was in the Jasper National Park, Headquarters being at Jasper Lodge, owned by the Canadian National Railways and well known as a summer tourist resort. The Lodge itself is reputed to be the largest building constructed of logs in the world, and it and the neighbouring little town of log cabins, including a delightful golf house which served as the officers' mess, are beautifully and luxuriously appointed; indeed the whole *ensemble*, set amidst a number of little lakes and pines with a background of snowy mountains, forms one of Canada's most delightful beauty spots.

The chalet hotel on the Banff-Jasper road near the Athabasca Glacier and Columbia Icefield formed an advanced base, while various huts and cabins used in summer by tourists and in winter and spring by skiers were also requisitioned. This is a big country

and the inhabitants think accordingly. When I first mentioned the chalet hotel to an 'old timer' he replied, "Well, it's handy enough for the station, I guess." The station at Jasper is 65 miles distant.

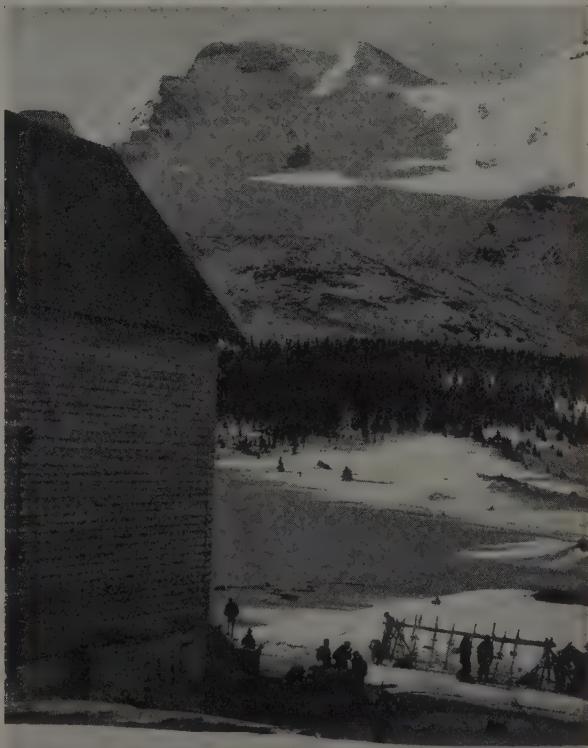
low base it is admirable, being within a few hours of ski-ing country comparable with that of Davos and the Arlberg, while mountaineering of a high order is available in practically all directions.

The greatest obstacle to the mid-winter popularity of this and other areas in the Rockies is the cold. Jasper is in the same latitude as Yorkshire and both sun and temperatures are low during December-February, minus 20° to 30° F. being common, while readings as low as minus 50° F. have been recorded. Warm clothing and footwear are necessary and precautions must be taken against frostbite. But the dryness of the atmosphere is a compensatory factor and low temperatures in still air affect the mercury more than the man. Owing to this, and to the admirable clothing provided by the U.S. War Department, troops entirely unaccustomed to such temperatures were able to continue their training throughout the winter, sleeping out in tents, snow holes and bush bivouacs, on occasion at heights little short of 10,000 feet, with no worse casualties than a few cases of superficial frostbite.

Snowfall to the east of the Divide is light compared with that to the west where 30 feet and more falls annually in the Coast Range and the Selkirks. Three feet is a fair average



Two bases were established at Jasper during the training of the Lovat Scouts. (Above) Headquarters at Jasper Lodge; the view from the officers' mess, looking over the golf course up the Athabasca Valley. (Right) The advanced base, close to the Athabasca Glacier and the Columbia Icefield. From here many long glacier expeditions were made as part of the normal training, and peaks of 9000 to 12,000 ft. were ascended. Mount Athabasca, 11,452 ft., seen in the background, became a standard ascent, ski being taken as far as the small point to right of the summit



in February at timber-line (6000-7000 feet), but considerably more falls at higher altitudes. The avalanche danger is less than it is in the Alps but increases as the winter lengthens and the snow deepens, reaching its maximum in March in the first days of the spring warmth. In wind-swept areas the danger exists throughout the winter and several accidents, involving one fatal casualty, occurred due to wind slabs.

Owing to the low temperatures and dry conditions the snow remains powdery throughout the winter, at times so loose and deep as to make ski tracking hard work, except when a warm wind known as the Chinook, not unlike the Alpine Föhn, sends the temperature rocketing and soddens the snow, but this usually happens only once or twice in a winter.

Winds are rare with low sub-zero temperatures; when they do blow it is time for all flesh and blood to shelter from the shrivelling blast. In the neighbourhood of the Columbia Icefield winds and ferocious blizzards are frequent during the mid-winter months, completely spoiling the snow, and it was found necessary to abandon training there until the advent of March and more favourable conditions. On the whole, however, weather conditions are reliable and severe blizzards rare.

The physical obstacles to travel in the Rockies, apart from the difficulty of the mountains, are the rivers, which are often too deep and swift to ford, and the timber. In winter the rivers freeze and present no obstacle, but that of the timber is increased by the snow. The forests to the east of the range, owing to lesser precipitation, are not nearly so formidable as those in British Columbia where a combination of dead-fall and undergrowth, consisting principally of alder and prickly 'devil's club', may reduce progress to a mile or less in a day; but they are formidable enough. Forest fires, sometimes involving hundreds of square miles of timber, kill the trees, and a new and dense growth of young conifers presently appears, struggling up between the ruins of the former growth which falls in a spillicin-like mass passable only with extreme difficulty by man or beast.

The timber thins out between 5000-6000 feet and here, and higher, are the ski-ing grounds. Thus trails must be driven through the timber in the first place, and huts and hotels built on or near the timber-line. Many such trails, accessible to wheeled or tracked vehicles, together with accommodation for ski-ers and summer mountaineers and tour-

ists, now exist in the Banff and Jasper Parks.

My first visit to the Rockies was in September 1943. After a comfortable overnight flight from Toronto to Calgary by Trans-Canada Airways I was motored to Banff. Calgary, like Edmonton, has developed from a small prairie settlement at the beginning of this century to one of the great cities of the West, yet the same pioneering spirit as of old, the same simple kindliness, courtesy and hospitality persist in these cities and settlements lying in the limpid prairie air within sight of the blue foothills of the Rockies.

As we sped west the brown dusty prairie heaved up into great rolling hills. Then came the first of the pines, and presently a lake of sapphire blue that reflected faultlessly the great limestone walls ahead, here golden in the sun, there deeply shadowed, crowned with shining snow between massive turrets of slow passing cloud that draped the nearer forest-clad hills with silver-blue veils of hail and rain.

The scenery at Banff reminded me of the limestone country of Cantons Uri and Glarus. Unlike neat and meticulously guide-booked Switzerland, however, the Rockies have still the charm of the little known. Man has scraped his clearings and driven his trails, but in the Banff and Jasper Parks there are still blank spaces on the map, still peaks, mountain sides and forests untrodden except by the grizzly, the moose, the elk, the caribou, the goat and many other wild creatures.

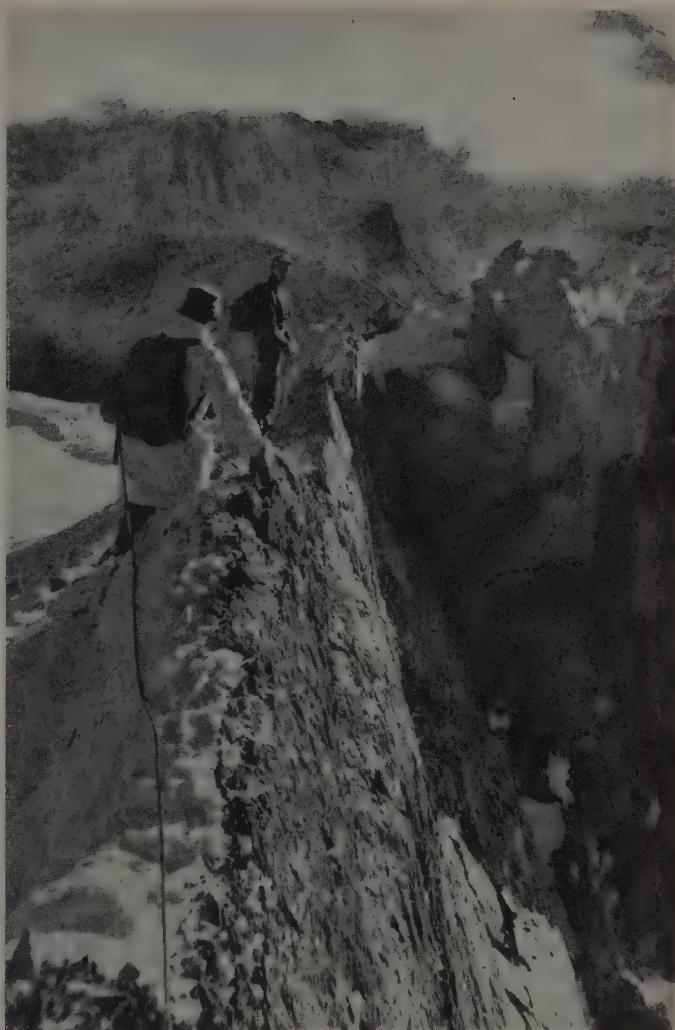
This charm persists all along the 200 miles of the Banff-Jasper road over which I motored next day, and it was at once evident that here, both as regards its mountaineering and skiing potentialities, was the perfect training area.

My second visit was in October to make a detailed reconnaissance of the area. This and subsequent work was greatly assisted by the Parks' authorities and especially by Major Woods, Superintendent of Jasper Park. Major Gibson, Canadian Liaison Officer, a well-known mountaineer with an intimate knowledge of the district, accompanied me; and with the chalet hotel near the Columbia Icefield as our base we ascended various peaks in the area (including Mount Athabasca, 11,452 feet, an easy peak which was later to become a standard ski ascent) and visited the Columbia Icefield and the Saskatchewan Glacier.

The Columbia Icefield is 110 square miles in extent and a magnificent ski-ing area. The only comparable Alpine icefield is that in the Bernese Oberland between the Lütschenlücke and the Oberaarjoch. But it is cold and wind-swept in winter and liable to sudden mists

and storms, excellent conditions for training mountain troops in direction-finding, but unlikely to rouse enthusiasm in the peacetime ski-er. It is best visited therefore in spring and early summer when its lonely recesses and surrounding peaks, including Mount Columbia, can be ascended almost entirely on ski in good conditions. It is also dangerously crevassed in places, especially at its junction with the Athabasca Glacier over which it is reached from the hotel, and an unpleasant incident occurred during our reconnaissance which came near to ending in disaster.

We were returning in our tracks when Gibson suddenly disappeared through a snow bridge into a concealed crevasse. We were accompanied by a Corporal Instructor whom I had already reproached for his carelessness with the rope, but he had not profited and there was now a yard or more of slack between him and Gibson. The jerk came. Instantly he was pulled off his balance and dragged towards the hole into which Gibson had vanished. We were on a slope and there was not more than an inch or so of snow on the glacier ice. For a moment things looked distinctly ugly. It was impossible to drive in an ice-axe, but I braced myself as well as I could. The pull came, and luckily the corporal, a strong sturdy fellow, had by then managed to get some purchase with his heels. This combination of circumstances, plus the fact that the rope had bitten deeply into the lip of the crevasse and through friction lessened the drag, was sufficient to stop Gibson who by



Canadian instructors on the summit ridge of Mount Wilcox, 9463 ft., a minor rock peak near the Columbia Icefield. Before undertaking the training of the Lovat Scouts, 86 Canadian instructors were given a three-weeks' course in mountaineering and methods of ski instruction

then was some fifteen feet down the crevasse.

Some imagine that it is easy for two persons to extricate a third from a crevasse. It is not. We managed to heave Gibson up a few feet. Then the rope jammed and froze into the lip of the crevasse. It had to be freed; so while the Corporal held on without any support from me and without an ice-axe belay, I worked it clear, afterwards inserting my axe



Norseman aircraft landing on Maligne Lake. Fitted with a ski undercarriage, these aircraft were used in air-ground cooperation work during training. Expert 'bush' pilots were provided by the R.C.A.F.



On ski near Tonquin Valley camp. The general character of the country in this neighbourhood is comparable with the Swiss Engadine in its diversity and the excellence of its qualities for ski-ing

The Ramparts, Tonquin Valley. This remarkable range of limestone peaks, averaging 9000 ft., is among the most striking in the Canadian Rockies. Resembling the Dolomites in aspect and steepness, it attracted the special attention of mountaineers, but not until after 1930 were some of the more difficult peaks scaled by members of the Canadian Alpine Club



horizontally beneath it to prevent it cutting in more deeply and again jamming. I prayed that he would be able to hold Gibson on his own. It was a full quarter of an hour before we were able to extricate our companion from what might have been an inescapable trap for us all, 70 miles from the nearest help.

Later, several crevasse accidents, fortunately without fatality, occurred to ski-ing parties. In conditions of light snowfall and low temperatures snow does not consolidate over crevasses and the greatest precautions must be taken when ski-ing on glaciers in this region.

After further reconnaissance of the Jasper area, followed by a course designed to select and qualify instructors for their duties, the Lovat Scouts arrived under the command of Lieut.-Colonel J. Douglas who had as his second-in-command Major E. A. M. Wedderburn, one of the keenest and best of British mountaineers, who was unhappily to lose his life in Italy.

Apart from the requisitioning of the chalet hotel near the Columbia Icefield and various chalets and cabins, tented camps were established in a number of areas. The most extensive ski-ing grounds in the Jasper district are those to the west and south of 20-mile-long Maligne Lake. Cross-country routes of 50 miles and more were established in this area, high passes crossed, and peaks in the little known Brazeau Range, which rises to over 12,000 feet, climbed. It was found possible to open up trails to this and other

training areas with small track vehicles, and later, when the ice had thickened, to land 'Norseman' aircraft fitted with ski undercarriages on the snow-covered lakes. Even today it would be possible for a ski-er to leave London by air and within 24 hours to be ski-ing in the heart of the Canadian Rockies: a thought which opens up all manner of dazzling possibilities in the future.

At present there is a chalet by Maligne Lake itself, intended for summer use, and two log cabins at timber-line in the mountains to the north-west. One of these, the Snowbowl Cabin, designed and built by 'Curly' Phillips, a well-known Jasper character who was subsequently lost in an avalanche, is a work of art. He named it 'Shangri La', and a 'Shangri La' it is, set among the gnarled and weatherbeaten outposts of the forest in a land sacred to caribou and far from civilization.

Another district to which a trail was made and a camp established with great ski-ing possibilities is the Tonquin Valley. At the head of this valley rises a range of great rock peaks, lofty and formidable spires of a character sufficient to excite the most exacting of mountaineers. In winter they afford a contrast to many fine ski slopes and small glaciers little crevassed and perfect to run upon. At the Jasper end of the approach to the Tonquin stands Mount Edith Cavell and nearby is a tourist chalet linked with the Athabasca Valley and the Banff-Jasper highway by a well-graded motor road. The building itself lacks sun during winter, but the slopes in the vicinity above the Athabasca



A squadron of the Lovat Scouts about to set off on a four days' cross-country ski patrol. Each man is carrying about 60 lbs of weapons, clothing, food and equipment. Troops of the British Army had never before attempted work of this kind which entailed sleeping in snow holes and bush bivouacs during a Canadian winter, when temperatures range down to 50 degrees below zero

Valley are so good that an Alpine sports meeting was held on them in which troops pitted their newly acquired skill against one another in *langlaufs*, downhill races and *slaloms*.

The zest with which the British soldier tackled such a hard and specialized training was something to be marvelled at. Within a few days he had learned to move around on ski; within a few weeks he was making long cross-country patrols over every kind of country, executing his stem Christianias with verve and skill, expert in bushcraft and at home on glacier and mountain-side. He astonished the 'old timers' and he ended by astonishing himself. Loads of 60-70 lbs were carried during patrols of 50-70 miles, and tactical exercises were carried out on terrain which would horrify those to whom the juxtaposition of two contour lines on a map suggests dire possibilities. He learned to sleep out in igloos constructed out of blocks of wind-compacted snow and in holes dug into the surface of high snowfields; as well as to eat

arctic rations including pemmican, which only needs to be renamed soup to become palatable. And his vision, limited to small horizons and in many cases to bricks and mortar, was expanded both physically and mentally by the wide spaces of the great north-west. He strained and sweated, grumbled and laughed; he was at first appalled by the loneliness and immensity of this new world of virgin forest and mountain, but he learned to identify himself with it and in the end to love it; for he knew, as did we who trained him, that it brought out his native qualities of hardihood, initiative and self-reliance, and that whether fate decreed him to fight on the mountains or the flat lands he would be a better man than his enemy. This was indeed proved.

As for the great parkland where the training took place, it will become one of the lungs not only of Canada but of Britain and other countries, and many generations yet unborn will rejoice in their discovery of the pristine wild.

(Right) The Banff-Jasper road 20 miles from Jasper. In the background are peaks of the Fryatt Range and to the left the half-frozen Athabasca River



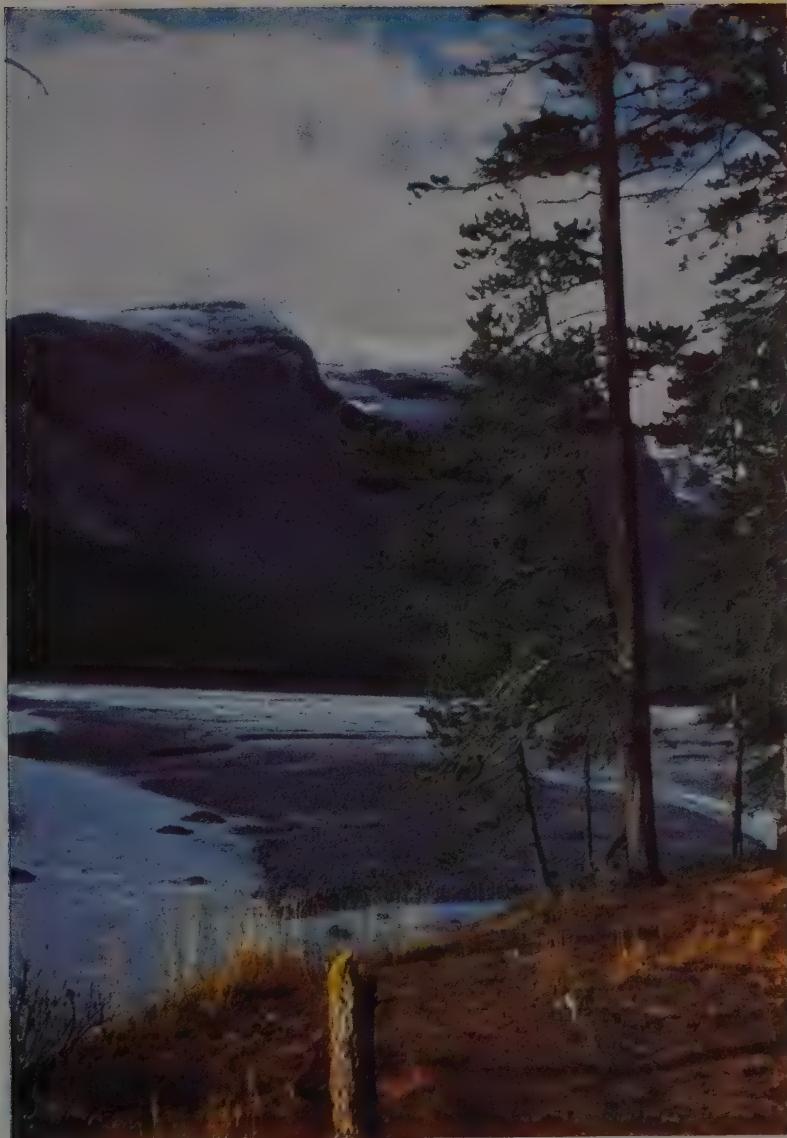
(Below) The Banff-Jasper road where it runs through the densely forested Athabasca Valley. It is kept open with snow-ploughs in winter

Kodachrome photographs by F. S. Smythe





Autumn tints near Jasper and the Yellowhead Pass, in late September when the aspen poplars were in full glory and the first snow of winter dusted the peaks. The Yellowhead Pass lies at the highest point of the Canadian National Railroad



The North Saskatchewan River a mile from its source in the Saskatchewan Glacier and the Columbia Icefield. The Icefield is surrounded by many peaks between 10,000 and 12,000 feet high: Mount Saskatchewan can be seen in the background



One of a series of small lakes near Jasper Lodge which, together with entrancing vistas of snowy peaks and pinewoods, give Jasper a high place among Canada's most delightful holiday resorts



A giant Canadian Pacific locomotive at Banff after hauling a train over the Kicking Horse Pass

Poland in Exile

by MORAY McLAREN

A new Poland, within new frontiers, is in process of creation. The delegates to the Potsdam conference expressed their desire to facilitate "the return to Poland as soon as practicable of all Poles abroad who wish to go, including members of the Polish armed forces and the merchant marine." Who are the Poles abroad? Their position cannot be understood without reference to the long history of Poland in Exile, summarized in the following article. And what of those who do not wish to go? British fighting men, their comrades-in-arms from the Battle of Britain to the liberation of the Low Countries, will recognize our debt and our duty to them and will appreciate the author's estimate of the sort of people they are

READERS will, I trust, forgive me if I begin this article on Poland with a brief parallel drawn from my own country, Scotland—Scotland whose homeland has been so strangely and unexpectedly associated with Poland in the last six years.

It used to be (and for all I know still is) the favourite bleat of a certain type of public speaker, addressing Scottish audiences, that "Scotland's finest export is her manpower." True, that export has been going on since the middle of the 18th century, especially from the Highlands. True, also, that it has usually been of a fine quality. But what of the homeland from which this export proceeded? You might as well say that a man's most useful contribution to his society is in blood-giving to the hospitals. It is small consolation for Scots (especially those of us of Highland blood) to find our kith and kin in every corner of the globe, and then to reflect on what they have left behind them.

Poland, for all her sorrows, for all the torture she has endured, does not find herself in so dour a condition. In Mr Churchill's words, "Poland is a rock over which the tides and the waves beat until she is submerged. She remains, however, a rock; and, when the tides and the waves have receded, she emerges as a rock." Nevertheless there is something of a parallel. Wherever you went in Europe before the last war you would find Poles in all conditions of life, exiled from their homeland. You would find something of the same in America. Though that is a somewhat different matter of which I shall speak later on.

The European Pole in exile, even to the second or third generation, was in the 19th century and, in the beginning of this one, deeply conscious of where his essential roots lay. Even if he did not go to the lengths that Chopin did, and carry a silver casket containing Polish Earth wherever he went,

he bore in his mind, his heart and in his faith a deep and essential sense of his Polishness which had enough dignity to prevent the suspicion of self-pity. It made him, moreover, paradoxically a 'good mixer', and yet a man apart.

It was the presence of these Poles in Leipzig, Paris and London that somehow linked the cause of Liberation with the Polish cause (admittedly somewhat vaguely defined) in Western Europe. Their ability, their charm of character and their artistic gifts made an impression, an impression which, with their ever-present sense of Polishness, became political in colour. Anyone who, like the present author, spent even his childhood in an atmosphere of political liberalism may remember that 'Poland' was one of those things in Europe that somehow, sometime, vaguely 'ought to be set right'. It was not that the excited Pole clamoured persistently on this theme. It was rather that he was able to mix in Western Europe and yet retain his individuality to a remarkable degree.

Such then was the position throughout the 19th century until 1914. Outside their immediate and ill-defined homeland the Poles, with their strange combination of adaptability and nostalgia, began to make their influence felt in two directions, (1) within the Empires that had partitioned their country, (2) in Western Europe and America. With the re-establishment of Poland as an entity on the map of Europe, and after the Polish-Soviet war, a new state of affairs set in. Their unfortunate country had, for a hundred and thirty years, endured repeated partitions and two abortive and bloodily repressed uprisings. Many Poles had left far behind them even the uttermost limits of their land. Many foreigners, especially Prussians, had been deliberately introduced into the very heart of Polish territory. It was not only the puzzled framers of the Treaty of Versailles



who were set a problem. Even the most ardent but reasonable Polish patriot must have felt his heart sink at the prospect of making a cohesive unit out of the mess left by the 19th century. This mess was not made easier by the victory won by the Poles over the Soviet Union immediately after the last Great War. By their re-establishment of 'honour', *i.e.* the recovery of historic frontiers in the East, they found within their nervous, hypersensitive, newly reborn country millions of indigenous non-Polish subjects, whether White Russians or Ukrainians. At the same time the inevitable tendency of drift which had occurred during the partition years had left biggish colonies of Poles outside the new State. The problem of the partition of Ireland (a country often likened to Poland) was as child's-play compared to the problem of who were Poles and who were not. The Irish and the British may bite for years upon the aching tooth of

the Ulster borderline. At least the sea decides the rest—the major portion of Ireland's limits.

Poles abroad (or, as Polish nationalists describe them, members of the *idea of Polonia*) fell into three different classes. (1) Poles who found themselves in the border countries of Germany, Russia, Lithuania, Latvia, Rumania, Czechoslovakia and Hungary. (2) Poles who through long habit of exile had settled down in Western Europe. (3) The Polish Americans.

Those who fell into the first class either consciously or unconsciously were the cause of more trouble than good. Nothing short of either a mass deportation home or an extension of Polish frontiers on an imperial scale could bring them within the homeland. They, themselves, the border exiles, were doubly conscious of the intoxicating idea of their country reborn after a hundred and thirty years, and, moreover, of their own



(Opposite) Two Polish heroes of the American War of Independence: Casimir Pulaski and Tadeusz Kościuszko; and a Pole who became a master of English prose: Joseph Conrad Korzeniowski. (Above and right) Two musicians through whom the voice of suppressed Poland spoke to the Western world: Ignace Jan Paderewski and Frédéric François Chopin

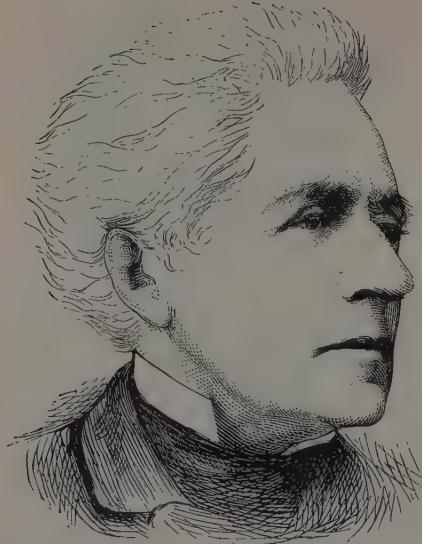
proximity to it. Their adaptability began to be swamped by a comprehensibly increased nostalgia. The unhappy name of Teschen, hitherto unknown to even well-read Britons, provoked in 1938 an incident typical of others which had been boiling up for twenty years.

The second class was the type which we used to meet in France, in Italy and in London. From these Westernized Poles were born the intelligentsia of Poles in Exile. Many returned to Poland after the last war. Many remained, or paid spasmodic visits home, preferring (and this is not meant unkindly) to continue the luxury of nostalgia while contributing their share of culture to Europe in general, and to Western Europe in particular.

It is at this point in talking about Poles that one national characteristic must be stressed. The Polish people are deeply conscious of their desire to be recognized as



Europeans, as products of the civilization that had its birth in the cradle of the Mediterranean. It would be unjust to attribute their heroic tenacity to the Catholic faith to this wish. Their true piety and belief, taken *en masse*, is undoubtedly. Nevertheless they clung to their faith with perhaps an added ardour, conscious of the fact that they were bordered on their two largest sides by Protestants on the one hand and the Russian Orthodox Church (or subsequently Communism) on the other. The normal Catholic patriotic Pole regards his nation as a wedge of Western and Mediterranean culture inserted into the fringes of North-Eastern Europe. Against this mastering idea even all the blandishments of the Pan-Slav concept could not prevail. From the ranks of Poles with this idea the names of Kościuszko, Chopin, Count Strzelecki (the naturalized English explorer), Madame Curie and Conrad (Korzeniowski) spring at once to the mind.



Sir Paul Strzelecki; influential in Victorian Britain through his many-sided ability

It is true that after Kosciuszko's fantastic military wanderings, as far west as the United States of America, he returned to some form of bargaining with the Tsars. The reason of this was, however, no turning of his back upon the West, but a profound distrust of Napoleon on two counts, first as a well-wisher to Poland and second as an influence for the best in Europe. At the same time, however, Dombrowski and his legions were fighting in Italy on Napoleon's side—on the very ground where, a hundred and twenty-five years later, their descendants were to fight so heroically in alliance with Great Britain.

The story of Chopin is too well known to be retold here. I cannot resist, however, lingering for a moment on the fantastic life of Count Strzelecki—so typical of the Westernized Polish exiles, even if he excelled them in stature and fame. Strzelecki was born in 1797 and died in London in 1873, thus spanning the period in which the Westernizing Pole was most making himself felt in Europe. The official reason of his leaving Poland in 1830 was an elopement which severed his relations with his family. His multi-coloured and romantic life never broke his love for the woman with whom he fled, nor his sense of his Polish origin. In any event he could hardly have returned after the savagely repressed risings of 1831 and

1863. He was, however, deeply bitten with the taste for the West. And it was against a Western and English background that he built up the career which made him famous in his time, and still causes his name to crop up in Victorian memoirs.

Geologist, explorer, scientist, speaker, talker, philanthropist, he wandered from Tasmania to Western Ireland by way of most countries of the world. His scientific observations are still regarded with respect. His medical relief services to the Irish peasantry in the potato famine and during the consequent fever plague made his name a byword in that distressed country, and added the final touch of glamour to an already glamorous personality in London. He became a naturalized British subject and gained the Orders of the Bath and St Michael and St George. His naturalization was an indication of two things, his despair of ever being able to return to Poland, and his deep love for England. He was an Admirable Crichton, a Don Quixote who tilted at fiercer things than windmills. Somehow, when writing of him, the figure of the late R. B. Cunningham Grahame comes to mind. Finally, it was he more than any individual Pole who kept the interest in Poland and the Polish cause alive in Great Britain in the 19th century.

If I have described at some length a re-



Marie Curie, née Skłodowska; a patriot exile from Poland whose researches into radioactivity marked an epoch in Western science

markable man whose name is unfamiliar to most British people today, it is because he was the prominent example of a type which was to make itself familiar in the days of our fathers and grandfathers. Paris, Leipzig, London and Rome were full, at that time, of Poles who had charm, talent, ability and, above all, adaptability. They may have lacked the genius of a Chopin, the military heroism of a Kosciuszko. But it was to their presence, their Polishness and their feeling that they, and their now officially obliterated country, were an integral part of Europe that the fact of Poland survived and became the subject of one of the clauses of the Treaty of Versailles.

All the time that these Polish exiles of the upper class or intelligentsia were pervading and adapting themselves to the atmosphere of Western Europe, another kind of emigration (no less significant in its results) was taking place in the same direction. The present writer as a small boy found himself in a railway carriage in Lanarkshire, south of Glasgow, just before the last war. At one of the stopping places a number of working men got in and filled the carriage. They proceeded to hold an animated conversation in a strange and sibilant tongue.

"What are these men? What are they saying?"

"Hush, dear; they're Poles from Poland who've come to help us in our mines."

"But I thought Poland was in Russia."

"Be quiet, dear; I'll explain it all to you later."

But it was never explained, until the war was over and the small boy had grown up enough to read newspapers with some degree of understanding.

These Poles in that Lanarkshire carriage were only a minute fraction of a large body of Polish working men and women who had drifted westwards, primarily to France (in the industrial north), Belgium, Holland, Denmark, the Rhineland and even to Great Britain in Manchester and the industrial parts of Scotland. What had driven these large bodies of Poles to the western limits of Europe? There were two reasons: the persecutions following upon the risings of 1831 and 1863; and the backward state of industrial life in the triply divided Poland. These were the primary causes that led to the establishment of Polish working men's colonies in Western Europe. Some of them were of the third generation before 1914. There was no question of their return to Poland then. Yet they kept in touch with their relations in Poland. Their comparatively prosperous state

acted as a magnet to such Polish working men as could escape. But naturally the trickle was small. When, however, the days of partition were over and emigration became a practical affair, devastated France called for all the manpower she could obtain. The result was that, between the two wars, the number of Poles working in the industrial districts of France rose to over half a million; while in Belgium there were 33,000 Polish workers. These startlingly high figures must be reviewed when one remembers that a number of these Poles came only for temporary jobs in the winter each year and returned home for the harvest, a thing, of course, which they could not have done in the pre-1914 days.

I hope the reader is not already tired of the word, but again what is impressive about these large groups of scattered Poles in Western Europe and in Great Britain was and is their adaptability to circumstances. Few environments in their differing ways could have been stranger to the Polish working man than Industrial Scotland, France and Belgium. Nevertheless these groups of Poles, sometimes for generations, managed to keep their individuality at the same time as they kept on good terms with the natives of the countries in which they had settled.

In France and Belgium they were aided by Polish organizations both civil and religious. They somehow managed, in spite of the inevitable gregariousness which such organization tends to encourage, to fit into the life of the nation to which they had come. Speaking for the most part a Slavonic tongue, and coming from mining districts, they were by some supposed to form elements of disruption, of anarchy or extreme communism, within the State of their adoption. In point of fact their religious and civil organizations, for the most part, kept them minding their own business. Yet they were able and willing to assist in time of danger the countries in which they found themselves. The story of the Polish legions within the French army during the 1914-18 war is one of which the expatriated Pole may well be proud. The activities of the northern Polish-French industrial worker in the German war that is just over, cannot yet be fully revealed. Let it suffice to say that the Germans found them one of the most obdurate thorns in their flesh when they took over the running of that important district.

What then of the almost indigenous French Poles who came over in the 30's and 40's of the last century—the grandfathers and great-grandfathers of the hard core of the Polish-French or Polish-Belgian? The answer is



Under the agreement negotiated by General Sikorski with Marshal Stalin in 1941, some 80,000 Polish troops and 40,000 civilians were released from the Soviet Union. Camps were organized in Persia (above, left) by the Polish authorities, with British help, to receive the civilians, who were distributed thence to various destinations. Children orphaned or separated from their parents required special care. For instance, there are orphanages at Tengeru in Tanganyika (right) and at Jamnagar in India (centre and bottom). The children's appetite for learning was immense; and they greatly enjoyed getting up national plays and dances (the Krakowiak is the dance shown). There are elementary schools in all the scattered Polish refugee settlements and, in the larger ones, institutes for secondary and technical education; but the difficulty of providing higher education is increasing.

Aboard a U.S. Coast Guard ship in the Indian Ocean, a Polish chaplain reads the Mass to his congregation of refugee children. Their destination was a Polish Children's Camp at Pahiatua near Wellington, maintained by the New Zealand Government



On arrival they were welcomed by the Prime Minister, Mr Peter Fraser, and the delegate of the Polish Red Cross. New Zealand soldiers aboard ship had to part from their young Polish friends; these were enabled to spend holidays with New Zealand families and the older ones to enter local secondary schools



In Britain there are about 300 Polish boys at the Air Force Apprentices Schools at Holton and Cranwell; 300 more at the Polish Merchant Navy College near Birmingham. Secondary education is also afforded by the Military Cadet School at Heliopolis near Cairo and by pre-military technical schools in Palestine. Openings are badly needed for the pick of all these children, as they grow up, to enter Universities in Britain and the Dominions



that, in a humbler way, they were playing the same rôle as the more talented intelligentsia of their exiled fellow-countrymen. The two decades just mentioned were a period when liberalism (in the better sense of that much misused word) was sweeping Europe, and especially Western and Central Europe, from end to end. The appearance of these refugees from the Eastern tyranny of that time aroused more pity than xenophobia. As time went on, and even through the changing vicissitudes of French and Belgian régimes, they came to be accepted as an innocuous unit within the State—a unit which did its job without giving much trouble. The same, on a smaller scale, can be said of the Polish miners and workers in Scotland and northern England.

So much for the European emigrant Pole whose journeys may be said to have begun with the partitions at the end of the 18th century. Whole books could be written about these individuals in all walks of life and in all professions. The foregoing description is merely a brief summing-up of their characteristics and history.

The American Pole, referred to further back as the third type of emigrant, falls into a very different class. He has received recently, and just before the war, the greatest publicity of the lot. I suggest, however, that his importance has been exaggerated. Polish propagandists tend to exaggerate the numbers of Polish Americans, impressive though those numbers be, even when reduced by a cautious estimate of facts. Caution, moreover, is necessary in estimating not only figures but also the psychological condition of these emigrants.

There is of course a strong historical affinity between Poland and the U.S.A. Having made that statement, one reflects that there is hardly a European country without that affinity in some form. However, France in the person of Lafayette, and Poland in Pulaski and Kosciuszko, have contributed national heroes to the North American cause who to this day are not forgotten by the more historically minded citizens of the U.S.A., especially by those who regard history as beginning with the Declaration of Independence. Eager Polish historians point to earlier emigrations of Poles to North America. But it is undoubtedly to Pulaski and especially to Kosciuszko that the Polish cause owes the beginning of its sympathetic treatment in the U.S.A. Not only was Kosciuszko a national hero in common—for he returned to his own country to fight for its liberation—but he stood for contemporary Americans,

and many who came after them, as an incarnation of the spirit of liberty struggling against the two demons of oppression: England and Russia.

It was this warm-hearted feeling on the part of the U.S.A. that led to the earlier Polish emigrations. These, as a result of the 19th-century oppression in Poland, naturally increased until we get the U.S.A. 1930 census revealing the fact that there were 3,342,398 persons in the U.S.A. "who had either come from Poland or were first generations of descendants from people emigrated from Poland". Polish propaganda understandably presses these figures further. It adds third and fourth generations and refers to the inevitable inexactitude of U.S.A. censuses when Poland was not an officially recognized State. By this means it raises the 'Polish population' in the U.S.A. to four and a half millions.

If you reduce these figures to an ungenerously low minimum of pure-blooded Poles—say three millions—this still remains a remarkable figure, about equal to the entire population of Eire or Norway. There are towns in which Polish is the predominant language and in which Polish newspapers are published. Their religion and their strong individual characteristics make them stand out. They are noticeable and noticed. Nevertheless I repeat that I consider their importance has been exaggerated for three reasons.

(1) This is the most important. America's capacity for turning even the most chauvinistic European into an American even in his lifetime is too well known to need comment. How much the more does this apply to the second, third and fourth generations.

(2) Americans, with the example of the Irish before them, are too apt to consider the Poles as an individual bloc. While it is true that, on certain local religious and civil matters, a largely Catholic population will vote one way, it is a very different matter when the cause of dispute lies across the Atlantic and the other side of Europe. Polish opinion on Polish affairs is, alas! notoriously prone to internecine strife. How much the more so when the blend of local American politics comes forcibly into view. The present writer has had experience of this difference of opinion during the recent German war.

(3) Polish propaganda, bemused, or shall we say, exhilarated by the figures quoted above, is apt to lay too much stress on Polish influence in America.

Having made these (from the Polish point

of view) somewhat dampening statements, one is bound to qualify them. More than any other group of Polish emigrants the American Poles have stuck to the land, and are therefore conservative in the European peasant sense. Moreover had it not been for America it is doubtful whether Poland would have achieved the full measure of independence which she did after the last war. Finally it was that romantic, typically Polish genius, Paderewski, who induced President Wilson to include the liberation of Poland as one of his 'fourteen points'.

What I have attempted to do is, in general, to show the tendency of Polish emigration until the outbreak of the present war. Since then the facts and figures of exile or emigration have increased to a startling degree, and have presented problems which, though urgent and of our own time, must be solved against the background of recent history before 1939. The Polish Government recently functioning in London kept in touch with the exiles and refugees with the practical purpose of extending help and relief to them. Their figures can therefore be regarded as making the nearest possible approach to accuracy. To take only the more outstanding figures, here are some of the calculations up to the time of writing:

In Germany approximately 1,000,000

„ France	„	44,000
„ Norway	„	20,000
„ Sweden	„	16,000
„ Italy	„	15,000
„ Rumania	„	12,000
„ Hungary	„	11,000
„ Switzerland	„	6,680

And so on on a decreasing scale throughout the lesser and further countries in Europe. In the nearer part of Asia here are the latest figures:

In Palestine approximately	8,900
„ Persia	„ 4,500
„ India	„ 5,000

Africa too has its large quota; over 17,000 in British African territories from Uganda to Rhodesia.

It should be emphasized and repeated that these figures cover only the exiles, refugees and 'displaced persons' on whose behalf the recent Polish Government in London were struggling to obtain aid and relief. On the top of these there comes the overwhelming problem of what is to happen to the Military, Air Force, Naval and civilian official personnel distributed throughout Great Britain, France, Italy and the Near East. The total of the armed forces outside Poland amounted in July 1945 to about 250,000; including Air Force 14,000, Navy 2000, Merchant Navy 1000 and about 12,000 military personnel interned in Switzerland.

Without involving ourselves in political discussions, we must face the fact that a large number of these exiles, refugees and personnel, whether military or civilian, will not wish to return to the New Poland.



From the date when General Sikorski reached Paris from Poland, September 19, 1939, a Polish army began to assemble in France. Recruits from all over the world found their way to the training camp at Coëtquidan in Brittany



(Above, left) The Polish Army in France reached a total of over 100,000 men; two Infantry Divisions and an Armoured Brigade took part in the campaign and suffered about 40,000 casualties. When France fell, 12,000 retreated into Switzerland; nearly 30,000 escaped to Britain. The Carpathian Brigade was formed in Syria, evaded Pétain's internment orders, crossed into Palestine and fought at Tobruk. Reinforced by 80,000 Poles from Russia in 1941, it grew into the Second Polish Corps, which landed in Italy in February 1944 and, fighting on the left flank of the Eighth Army, distinguished itself at Monte Cassino (right), Ancona and Bologna. A Brigade of the First Polish Corps in Britain took part in the Norwegian campaign of 1940. The crack First Polish Armoured Division landed in Normandy on August 8, 1944 (left) and advanced with the First Canadian Army into Belgium, Holland and Germany. A Parachute Brigade fought at Arnhem

*The Polish Air Force at the outbreak of war numbered 8000 men, most of whom escaped to Britain. In the Battle of Britain two Polish Fighter Squadrons and 80 other Polish pilots shot down 203 enemy aircraft—the Kosciuszko Squadron alone destroyed 126; 33 Polish pilots were killed. On VE Day there were 10 Polish Fighter and 4 Bomber Squadrons with 12,000 personnel; they had destroyed 1112 enemy aircraft and lost 2025 airmen. The Polish Navy, after losing 1 cruiser, 4 destroyers, 2 submarines and 17 other craft, is still larger than in 1939. It has sunk or damaged 81 enemy vessels. (Below, right) The *Piorun*, first to sight the *Bismarck*, engaged her for 55 minutes till British units came into range. Altogether more than 540 British decorations, including 40 D.S.O.'s, have been won by the Polish forces*



Poland can rebuild itself somehow and at some time. There can be no obliteration of that hardy, heroic and most fertile people—the birth-rate of Poland has for decades been the highest in Europe. But what of those who feel themselves compelled to remain outside?

This is not a political article in a political journal, nor would I feel competent to make detailed suggestions on this large and pathetic problem if it were. I merely point to the lessons that we Europeans, above all, have

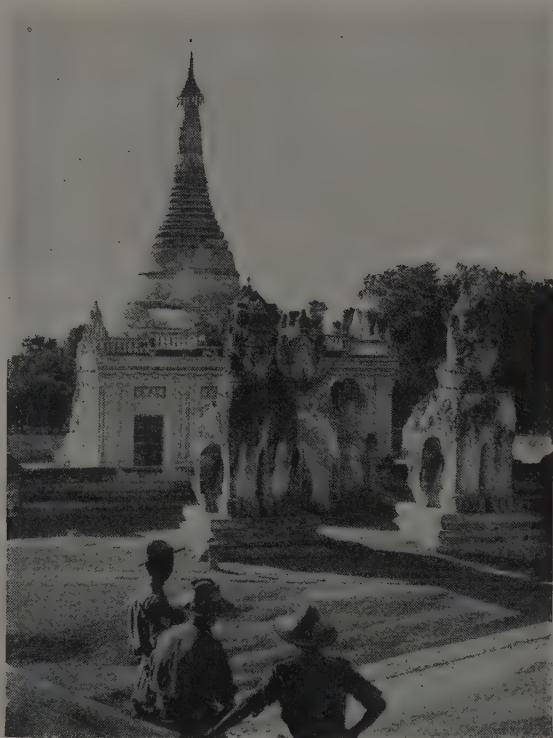
learnt in over a century of Polish emigration and exile. What have we learnt? We have come to know that the Poles outside Poland in our midst are courageous, expert in military affairs, obstinate, good workers, talented in the arts and in science, given to internecine differences, full of a longing to be recognized as Europeans of Western culture and a score of other things besides, both good and bad: but above all loyal and adaptable to those who befriend them and take them in.



South-Eastern Asia Command: How the Army Lived

by CAPTAIN H. C. MALONE, R.A.

Speaking on August 21st, the Prime Minister said he did not think that even yet sufficient credit had been given in this country, let alone in other lands, to the achievements of the Fourteenth Army, which had engaged and defeated the largest single Japanese force ever put into the field. Captain Malone's article, written before the conclusion of the campaign, stands as a modest record of the conditions in which it was fought and won



British official photographs from the Ministry of Information

Flanking the entrance to a pagoda in the village of Chanta, near Ye-U, stand the Guardians of the Temple, the benevolent Chin The. It is from these words that General Wingate's Chindits took their name. British troops entered Chanta in January 1945

To give an impression of the conditions under which the forces in S.E.A. Command have been fighting for the past three years, it is first necessary to dispel a slightly erroneous idea of Burma which has arisen in people's imaginations. This misconception is not difficult to understand; for very few of the white population who had lived long in the country ventured into the areas in which the battle moved backwards and forwards for two years. Those who had been there must have found it difficult to believe that an army could have been maintained in such conditions. Those at home could only venture a guess, based on pictures, books and the

cinema. Even the school atlas betrayed us, for we compared Europe against Asia, on Mercator's Projection, and Burma was half as large as Italy!

Space, therefore, is the first fact that strikes us. Troops reaching Mandalay must have felt their next 'push' would be down 'the home straight', and yet it is 800 miles from Mandalay to Rangoon. Distance is not the only factor, for time is also a considerable dimension in this type of warfare. In map miles the routes followed by the Chindit expeditions would take an English train but few hours to complete. A mile measured off the map might take a patrol twenty minutes or

two hours marching. A point to remember, however, is that it would usually take only twenty minutes.

There are certainly jungles in Burma, the Assam frontier, Manipur, the Lushai Hills and the Arakan Yomas; each shows an individual type of forest. In all they cover many thousands of square miles. Few are steamy and tropical as we imagine them, although some parts are probably quite as dense as the proverbial African forest. Some lie at sea-level, others at 400 to 500 feet. The trees can be tall and close-growing, there are areas of matted bamboo, tall elephant grass, and mangrove swamps. In some places they may be as open as English parkland. It is impossible to generalize. Scattered in the valleys, and on hill-tops as in the Naga country, there are often clearings with villages or rice-fields; provided there is a good water supply signs of human habitation appear. It is surprising how much open ground one finds in a jungle tract.

Nature did not intend that Burma should be entered from the west. The mountain ranges and rivers run from north to south and all means of communication followed the grain of the land. Roads from west to east were practically non-existent. The problem confronting the Fourteenth Army was to cross the hill tracts into the central plains and valleys of the great rivers before a drive could be made against the key centres of the country. Living in a country of moderate rainfall it is hard to visualize the effects of 200 inches of rain in four to five months on the soil of these Western Burma Hill Tracts. They are extremely steep. The banks of streams or *chaungs* are sheer and high; everywhere the surface is cut up, and the resulting engineering difficulties can be appreciated.

The rock formation also has a considerable bearing on the topographical character of the country. It appears to be young and unformed. It is soft and easily corroded. The silt is extremely rich and practically any plant seems to flourish. It also dries as quickly as it is drained, or the atmosphere can absorb the humidity. The natural cycle of the soil produces vegetation to bind its surface as well as to contain the humidity which will support the vegetation itself. It also supports a considerable insect life, of which the most noteworthy is the mosquito. Never could we have fought the campaign

to a successful conclusion had not malaria been first overcome. At one time the rate of hospital admissions was in the proportion of one wound to seventy sickness, and at times it may have been higher; malaria took the greatest toll. With effectual drainage and improved precautions against the insect bite, and the general use of Mepacrine, these rates went down, until in 1945 the sickness admissions to hospital from the whole theatre were one per thousand per day from all diseases. The malarial incidence was present throughout the year, varying with the season. The mosquito had to have a breeding ground. Since the chaungs and pools vanished in the dry season, the number of insects decreased. The rains came about the end of May, and



the streams flowed too rapidly to encourage the growth of larvae, which only survived in occasional backwaters. After the rains, however, the number of still pools increased and the inevitable ensued.

The climatic conditions in Western Burma cause some surprise when compared to those in India. In the winter the nights are cold and misty, the temperature in the Arakan at sea-level may be between 40°-50° Fahrenheit and in the hills of Northern Burma even colder. Day temperatures are very moderate and the skies bright and clear. It can be uncomfortably cold out of the sun. By the end of January, however, the trees and undergrowth get dry and the hills are dusty, and it becomes progressively worse until the monsoon breezes begin. By May everything seems to be parched, and then the rains come. All that has been imagined or written about the terrible conditions met in jungle warfare, apply to campaigning in the monsoon. It is humid and hot, the vegetation springs up overnight, clothes are never dry, chaungs become torrents, dust turns into a quagmire, roads and bridges collapse, and man-made war necessarily comes to halt. Yet, in spite of this, Fourteenth Army carried on an advance down the Tiddim Road last year, which was not spectacular, but as an achievement was on a par with the deep penetration patrols of General Wingate's Chindits.

After this brief introduction, the way in which the Army adapted itself to these environments can best be illustrated by describing the conditions at the beginning of 1945. The earlier period was one of trial and error, of learning by experience which was sometimes bitter, but never wasted.

The size of the force that could be put in the field was governed by the channels available, by which it could be maintained. Disregarding, temporarily, the special factors applying to 'the force without a tail', a principle made practicable by Air Supply, the necessity was an all-weather Line of Communication. This applied to the smallest detachment sent into contact with the enemy, say a standing patrol of a few men in front of the Company position. It could only be effective while it was fed and supplied with ammunition, and any casualties could be evacuated. Railways were laid as close up to the forward areas as possible, but they were limited by their vulnerability to weather and enemy attacks, and difficulties of engineering in such wild country. Parallel to them there was, in Arakan, transport by coastwise shipping, and boats of the Inland Water Transport, which until December 1944

operated as far forward as Maungdaw.

From railhead forward, the chain of supply was continued by Motor Transport. This entailed the preparation and maintenance of roads and bridges. In Assam and North Western Burma roads were often metalled and sometimes even tarmac. Since stone was not available in Arakan, brickfields were started and portions of the main road were bricked. Further south it was built up with clay and mud; and it was a familiar sight to see old people and children laboriously sprinkling water on the surface, by hand, to lay the dust. In spite of all efforts there were few 'highways' which could be called comfortable. They were rough going, and nothing could stop the appalling dust.

In forward areas the advent of the bulldozer made the Engineers' task easier. In a few hours, these invaluable machines did the work of months of labour. In the dry season such tracks were quite adequate but quickly became impassable in the monsoon. At first, culverts and even bridges 100 to 200 feet long were built of local teak. They were just broad enough for a single vehicle, and rattled alarmingly as one passed over them. As equipment became available, Bailey bridging replaced wood in the larger crossings. Animal transport came into its own in the forward areas, and the mule became one of the units' most valuable possessions. They went very nearly anywhere, but it will surprise some to know that there was a limit to their use in this type of country. Often tracks were so narrow that the carriers were torn from the saddles; at other times gradients were too steep. However, they swam rivers and trudged the hillsides in all weathers; they were shelled and ambushed, and spent hectic nights in isolated forward localities.

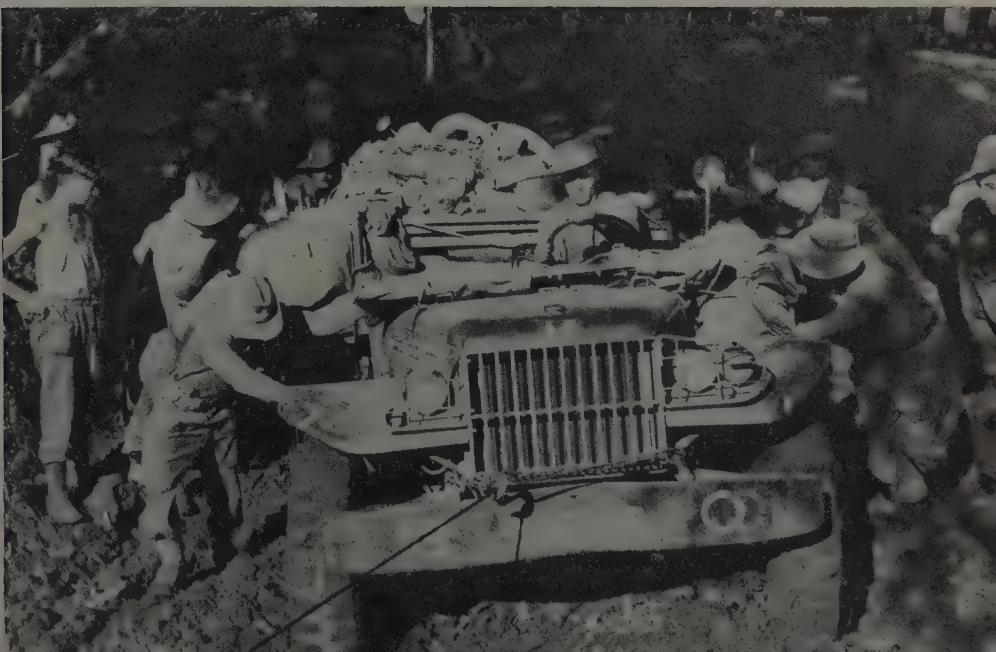
Means of transport were improvised with as much variation as in any campaign ever fought. Elephants were used in Assam to carry logs for road and bridge building. It is uncanny to see them lift a great log, place it in position and studiously tap it into true. Supply by water provided the answer to the problem in Arakan this year. Native boats were collected and used during the advance down the Kalapanzin River during the clearing of the Mayu Peninsula. There was a very good reason for using such primitive methods. 'The Kalapanzin Flotilla' was brought from Maungdaw over the Mayu Ridge to Buthidaung by a road which ran through two low tunnels, making it impossible for even the smallest landing craft to be used. As soon as Buthidaung had been cleared by the West Africans *sampans* and



Roadless mountain ranges running from north to south hampered an advance from west to east. A fair-weather track over the mountains between Imphal and Tamu was converted by British Sappers, with the aid of Burmese labourers, into a two-way road for heavy traffic and became a main supply route for the advance on Mandalay from the north-west



The difficulties of mechanical transport, in a land where 200 inches of rain are precipitated during the four or five monsoon months, can hardly be exaggerated. Amphibious 'ducks' provided, in places, a solution for the problem of ferrying supplies across swollen rivers; elsewhere, heavily loaded lorries had to be towed and man-handled through thick mud



improvised rafts, for guns and heavy equipment, were launched; and there the difficulties began. There was a 4 to 5 knot race and a tidal fall of 10 feet which caused many headaches. The odd 'naval engagement' with the Jap was the least trouble during the voyage to Akyab.

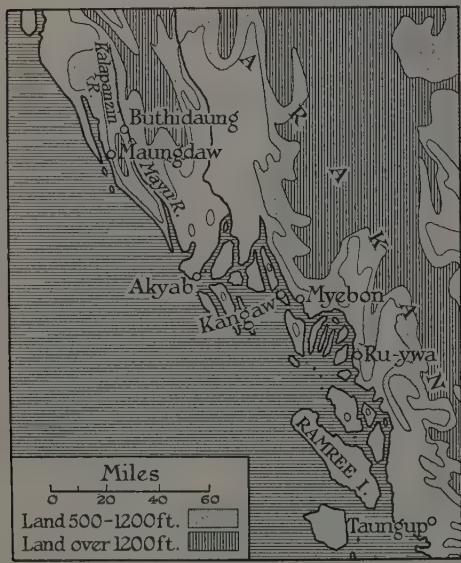
As more landing craft became available, they were used not only to put ashore troops and equipment during the combined operations down the coast but to supply them almost entirely, at Myebon, Kangaw, Ramree, Ru-ywa and Taungup. Later they sailed up the Rangoon river to complete the otherwise impossible task of containing the enemy on the West Coast, and join up with the troops fighting south down the Irrawaddy.

The deciding transport factor of the campaign was the use of the air. By 1945 S.E.A.C. *in toto* could be said to have been 'the army without a tail.' Everyone believed that supplies would arrive under any circumstances, and the rise in morale was very great. To the enemy it must have been equally demoralizing, for he could go to great cost to cut off communications only to watch an aeroplane fly over and drop several tons of essentials in a few minutes. Air Transport was capable of supplying practically anything at short notice, from medium artillery to ready-cooked Christmas dinners. When fully organized, the aircraft landed on a prepared landing strip, and in this way units in forward areas were able to live on fresh meat

from Australia and New Zealand, fresh fruit and vegetables and other delicacies till recently unknown to an army in the field. Tactically, however, the 'Supply Drop' was more important. A force could push ahead as quickly as its fighting element could move. Everyday its food, ammunition, mail and necessities were delivered from the air. There was no vulnerable, long life-line requiring protection or delaying its progress. The aircraft flew over a marked spot and dropped out the supplies in bundles. Most came down by parachute, but those supplies which would not be harmed, such as bags of sugar or bales of clothing, were dropped without. This was a risky business for the recipients, who had to go to cover! It will be seen, therefore, that it was not impossible for a fighting column to sit down to a hot meal of two courses and fresh fruit, without having to prepare a meal themselves at the end of a day's march. Light aircraft were used in forward areas. They required a short landing strip about 100 yards long, which was not difficult to prepare. Their chief asset was the rapid evacuation of wounded from forward areas.

When transport by all other means failed, the most primitive of all was effective. Man on his two feet went where he willed. In this theatre of war and those of the Pacific, the soldier was required to march much more than in the Western theatres. Despite the aids of science, he was ultimately dependent on himself. Porter companies, recruited from the hill tribes of Northern India, Nepalese, Kumaonies, etc., carried incredible loads under conditions far beyond the power even of the mule. They were grand little men, usually unarmed, and weighed down by their loads they were often under fire. Occasionally they got the chance to hit back and this they did most effectively.

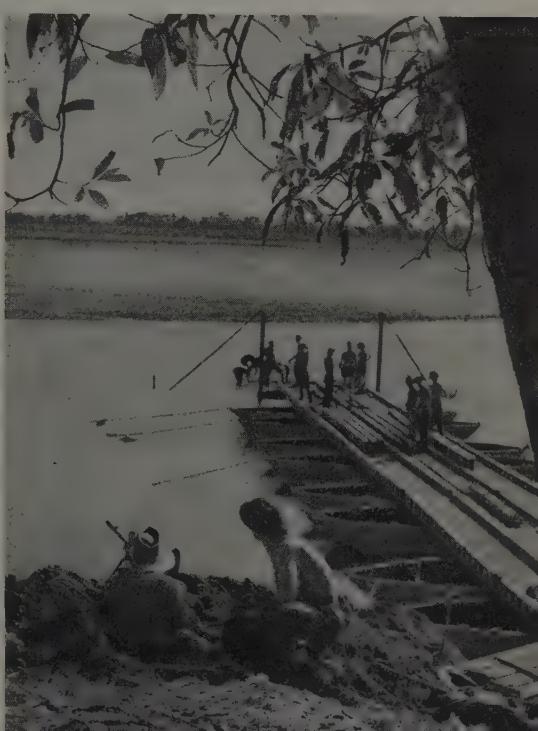
Now fighting in the jungle was not new, in that a constant war of man against man, and man against nature, had been waged since Time began: but we as civilized beings had lost our natural ability and cunning, and only regained it by bitter experience. The first step was to master the jungle. Men were loath to leave a track and move into undergrowth or high grass, but they soon learnt that fear of snakes and hidden things was more imaginary than real, and gained confidence and self-reliance. They had to accustom themselves to a feeling of intense loneliness which overcame one when barely out of sight of comrades. A parallel in children is fear of the dark. To a sentry at night it could be something very real. The



Stanford, London



Once the central plains of Burma were reached, each of the great rivers was a barrier that had to be forced—first a bridgehead, then a bridge—against determined Japanese opposition





All kinds of transport were of service in the Burma campaign: local sampans, for example, in the Arakan—



caravans of bullock-carts, in heavily populated districts where the enemy had not seized or killed the cattle—



and, where the hill-fighting was hardest, the sturdy backs of pioneers recruited from the tribes of Northern India

call of night birds and jackals was eerie enough, but had an added significance when we knew the Japanese mimicked them for signal calls. A man had to use his natural senses to their fullest, to become aware and suspicious of the slightest movement, to listen for slight sounds, to cultivate a sense of direction, to move silently and without being seen by day, or heard at night. By its very nature it was war at close quarters, and at any time it could become a fight between individuals, and so was akin to night fighting. The Japanese enthusiastically claimed, "Night is our Dancing Time", and in the early stages this was true. Later they found to their cost that we had learnt to distinguish between shadows before we fired, when to remain silent, and to use the darkness as an ally.

We learnt it was necessary to take every precaution to safeguard health. The taking of Mepacrine every day became a routine. Personal cleanliness as a counter to skin diseases repaid the extra trouble taken to find washing water under difficult circumstances. We learnt that flies when present in large numbers had some good reason. The disposal of refuse and strict sanitary discipline reduced their numbers to controllable proportions, and the arrival of DDT insecticide improved the situation even further. How careful we had to be about drinking water! Do not think water is synonymous with jungle. It could be as scarce, at certain seasons, as it was in the desert. We found it in ponds, below the surface of beds of chaungs, in holes in fields. It could be as thick as Turkish coffee, green with weed, or clear and cold. There was a great temptation to judge its purity by its colour, until the result was dysentery or cholera. In a state of complete exhaustion and great thirst it is easy to throw discretion to the winds, but chlorinated water had to be a rule. The percentage incidence of diseases from bad water was very small. In brief, therefore, we had to be disease-conscious; it was our first enemy. Do not imagine there was any fear of sickness. We had, rather, a firm confidence that were we to give disease no opportunity, then we could not be harmed. The result was that many troops were in action constantly for a year or more without being sick once.

The necessarily active life, the constant ascending and descending of hills, the usually pleasant climate, the good food, produced in S.E.A.C. an extremely fit body of men. It was the practice, whenever possible, to wear no shirt, in order to keep down prickly heat and other heat rashes. British troops were

sunburnt almost as brown as their Indian comrades. A pale-skinned new-comer was greeted hilariously with "Off with your vest!" or "You'll never need a white flag." The troops looked fit. Once, after a week of particularly sleepless and strenuous operations, some troops were visited by the general. One of his first remarks was, "They don't seem to show any signs of wear yet," but there was not a man there who would not gladly have slept the clock round.

Take the case of a man moving into an attack. His section is to wipe out a machine-gun nest on a small hill. Shells from our guns are raising a dust-cloud all round, as, with other sections to right and left and behind, he moves closer through the trees for the final rush. The gunfire stops suddenly, and in they go, bayonets glinting, everyone shouting, up the slope towards the Jap position. He is just below the machine-gun nest when a grenade comes rattling through the dry leaves almost to his feet. He dives for cover, but not quickly enough, and the next moment he is lying completely helpless with his senses swimming. He has been wounded. His comrades go on and take the machine-gun, and the company the small hill; but long before this is complete, stretcher-bearers following the leading wave have found him, applied his field dressing, and have given him water to drink. He finds he can walk and sets off with two or three other wounded and a small escort for the Regimental Aid Post. One of the wounded is a lying case and has to be tied to the stretcher to avoid slipping off as they descend some of the precipitous paths. He has been injected with a tubunic ampoule of morphia to ease the pain. At the R.A.P. our wounded man has his wound cleaned, and new dressings are applied while he sips at that always acceptable universal panacea for shock—tea, hot and sweet. His next stop is an Advanced Dressing Station which provides more tea, injections against tetanus, minor surgical attention and blood plasma if necessary. He is soon hustled into an ambulance and, pleasantly under the influence of morphia, is driven to the Main Dressing Station. He receives further surgical and medical attention if he requires it, and he is fed and allowed to sleep while arrangements are made for his evacuation by light aeroplane, motor ambulance or by water, to a Casualty Clearing Station. This will be equipped for any contingency; he finds electric light, Nursing Sisters, good food, a bed, surgical teams, and when he leaves he is on his way to recovery. As soon as he is fit to travel he is flown per-



Air transport played a decisive part both in the victories of S.E.A.C. and in the rapid evacuation of casualties. Here a severely wounded British soldier is about to be flown to India

haps two or three hundred miles to a General Hospital which is capable of nursing him back to health. Should he require specialist treatment (orthopaedic, maxillo-facial, eyes, etc.) he is moved by ambulance train to centres in India, and his journey of some 2000 miles is over. Every aid of medical science is available and everything is done to prepare him for duty again. When he leaves hospital, he is sent to a convalescent home to recover his strength before returning to his unit.

Most of the factors which maintain a soldier's morale have now been covered. He receives 'the tools to finish the job', he is fed well, his health is cared for, should he be hurt he is looked after properly. Yet this cannot be everything, for nothing has been said of those aspects which affect his mental outlook. Cut off from the world he knows, there is a tendency to feel he is losing touch with it. The operations in Europe were of personal interest to most of the men. The defeat of Germany would assuredly shorten the Japanese war, and hasten the return of S.E.A.C. men to their homes, but the outcome of the Japanese War could have not possibly interested men of the B.L.A. to the

same personal degree. The future of post-war politics, town planning, pre-fabricated houses and so on, was the future also of each British soldier. He got his news through *SEAC*, the daily paper issued by the Command, from home papers which some men had sent to them, and from the wireless News Bulletins. While Operations were in progress a fortunate few were able to listen to them in forward areas, but Unit Headquarters issued a daily summary whenever possible. *SEAC* however seldom failed us; it came by air with the mail and sooner or later nearly everyone had the opportunity of seeing it.

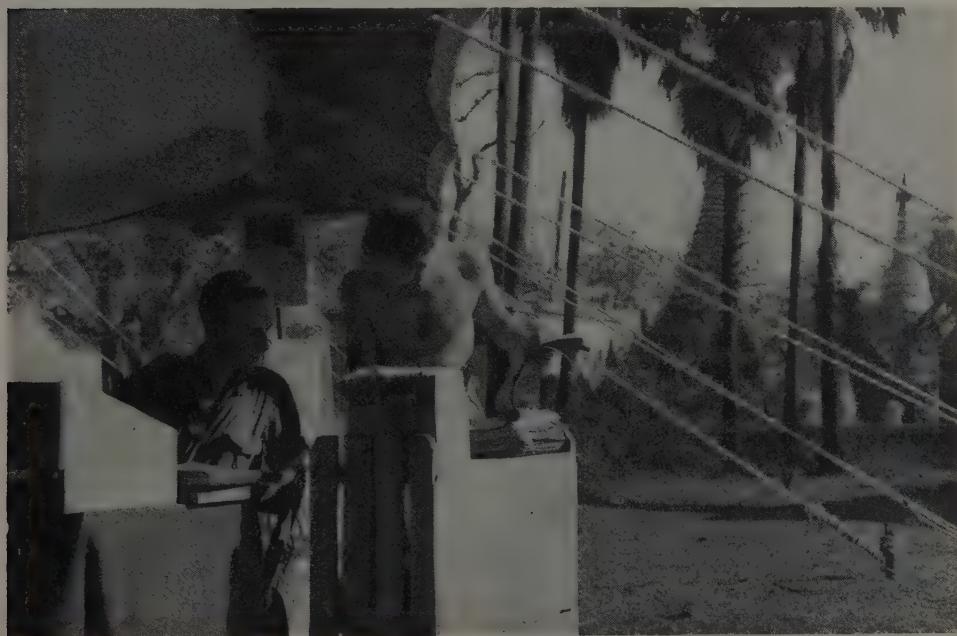
Mail from home is always the most popular feature of the day. It arrived surprisingly quickly, for an Air Letter could be delivered in a forward locality quite often within a week of being written. The post-bag cheered everyone, and when it had been handed out and read, there was still a pleasurable anticipation of the arrival of the next. When the postal dues on air letters from the men in S.E.A.C. were removed at the beginning of this year, it was the best concession that could be made to the men and their families. It was not the saving of a four-anna stamp

that counted, but the ability to write home regularly whatever was happening. Money meant practically nothing to the troops in action. They could not spend it often. Even had they the money with them it was usually most difficult to convert it into the necessary stamp.

Relations with the local inhabitants are nearly always cordial. A section of the Burman population did undoubtedly come on easier times during the Japanese occupation of the country and they sometimes caused a little trouble, not because of a particular loathing of British rule, but because they probably feared reprisals from their own countrymen. A large number of these pro-Japs had followed in the wake of the Japanese Army. They were able to make extortionate demands on the local populace, and themselves became unpopular in consequence. Fearing reprisals they withdrew with the Jap forces, and were occasionally found using arms against our men; but such cases were few. Our relations with the local people traditionally opened on a financial footing, and some barter of cigarettes, etc. for eggs and chickens was followed by almost the

entire village turning out to do odd jobs of digging and carrying, with repayment in biscuits and spare food. Public Relations officers settled claims and organized the villagers' behaviour officially, but much useful information was often to be had at friendly pow-wows, which were carried on by sign and simple drawings in the dust. Generally the Burman was a most affable fellow, always willing to sit and smoke a pipe with the donor of a fill of tobacco.

Caste and creed made little difference, on the whole, amongst the troops in S.E.A.C. which boasts a varied selection. British, American, Indian, Burman, Chinese, West and East African, compose the chief representatives, yet the whole was a well-knit fighting force. The British and Indians have been often tried together in war but the understanding between them has improved even further in these past few years. The language difficulty still stands, for the Tommy's Urdu is limited, but it does not prevent each from appreciating the other's qualities, from sitting and sharing food and tea together in spite of caste prejudices, or from carrying out an attack with perfect



A corner of the orderly room in one of the mobile field hospitals established by the R.A.F. These hospitals could be fully operational within 48 hours of reaching their destination



Seldom have troops of such various races combined as in the army which drove the Japanese from Burma. British, Indian or African, their relations with the local inhabitants were cordial



coordination. This coordination has only been gained by sharing actual battle experience, for it is not enough to be told of these things; one has to see the other man live and fight under the same conditions as oneself. The African is a friendly fellow by nature, and settled down quickly wherever he was. Whether he will ever understand the Indian soldier seems doubtful, but he is quite ready to live and let live. The Chinese were fighting in Central Burma under the worst conditions. Few of us met them, but those who did have nothing but praise for them. What could be written on this subject would fill a book; it is sufficient that all these races are still fighting well under a single Command.

The work done in S.E.A. Command is a very real thing; and its reality is attested by the signs of battle that may be found, even after this year's monsoon, scattered over thousands of square miles—under trees, on mountains, by rivers and the sea. There are graves, many of them those of British youths. Their lives were lost for the same cause as were thousands nearer the shores of home.

Hindhead: 1786-1945

by OLIVER WARNER

"CERTAINLY the most villainous spot that God ever made." So said Cobbett on October 10, 1822. He spoke of Hindhead, in the same county as his own Farnham, and but a few short miles from Guildford, of which he wrote that "I, who have seen so many, many towns, think the prettiest and, taken all together, the most agreeable and most happy-looking that I ever saw in my life". Though regarding Hindhead as so villainous, Cobbett thought in political and economic terms. Haslemere he deemed not a pretty village, which it undoubtedly was, but "that sink-hole of a borough" (the Reform Act being ten years in the future), while as for Hindhead he piled on the agony by saying that "our ancestors do, indeed, seem to have ascribed its foundation to another power; for the most celebrated part of it is called 'the Devil's Punch Bowl'".

All this was prejudiced enough, but Cobbett also left one of the most graphic descriptions of the place and its aspect. "Round the skirts of Hindhead and Blackdown", he says, "the ground lies in the form that the surface water in a boiling copper would be in, if you could, by word of command, make it be still, the variously shaped bubbles all sticking up." The large relief model in the Educational Museum at Haslemere irresistibly bears out the truth of this description.

There might well have been another reason for Cobbett's animadversion. In 1786 there was a murder on Hindhead whose particulars are such as to recall a melodrama in the best tradition. On September 23 of that year a sailor was walking from London to Portsmouth. At Esher he fell in with three penniless men: Michael Casey, James Marshall and Edward Lonegan. The four agreed to proceed in company. That night they stayed at a wayside inn, and next day, late in the afternoon, called for a drink at the Red Lion near Thursley. Here they were seen by two labourers who lived the other side of Hindhead. The four set out after their refreshment, followed some time later by the labourers. With the last of daylight they reached the top of Hindhead, where the murder was committed.

When the labourers came that way they saw what they first took to be the body of a sheep lying just within the hollow of the

Punch Bowl. One of them climbed down, to find the sailor dead and naked in the heather. Suspecting what had happened, they followed in the tracks of the other three men, and overtook them at Sheet, near Petersfield, where they were in the act of selling the sailor's clothes. The murderers were arrested, tried, and hanged in chains near the scene of their crime. The remains of two bodies were still there in 1791, on New Year's Day of which Gilbert White records: "The thunder storm on Dec. 23 in the morning before day was very awful: but, I thank God, it did not do us the least harm. Two millers, in a windmill on the Sussex downs near Good-wood, were struck dead by lightning that morning; and part of the gibbet on Hind-head, on which two murderers were suspended, was beaten down."

Dickens, in *Nicholas Nickleby*, describes Nicholas and Smike passing the spot on their tramp from London to Portsmouth, as did so many other travellers. "They walked upon the rim of the Punch Bowl," says Dickens, "and Smike listened with greedy interest as Nicholas read the inscription on the stone, which, reared upon that wild spot, tells of a foul and treacherous murder committed there by night. The grass on which they stood had been dyed with gore, and the blood of the murdered man had run down, drop by drop, into the hollow which gives the place its name. 'The Devil's Punch Bowl,' thought Nicholas as he looked into the void, 'never held fitter liquor than that.'"

The inscription on the 'stone' referred to reads:

ERECTED
In Detestation of a barbarous Murder
Committed here on an unknown Sailor,
On Sept. 24th, 1786,
By Edwd. Lonegan, Michael Casey, and Jas.
Marshall,
Who were all taken the same day,
And hung in Chains near this place.

The monument was put in place in the very year of the crime at the expense of James Stillwell of Cosford, who laid a curse on "the man who injureth or removeth" it.

Nearly a century passed over that high and



The Devil's Punch Bowl, Hindhead

Dudley Styles

lonely spot, from which may be viewed a superb prospect. In 1826 a new road was cut, lower than the summit, Mr Stillwell's stone being moved despite all his curses by the Ordnance Survey, though not very far. In 1851 Sir William Erle put up an Iona cross of Cornish granite on the highest point (Hindhead is 895 feet, second in Surrey to Leith Hill, which is 965 feet) with Latin inscriptions designed to lure the mind from associations with the murder. Then, in 1876, Louis Jennings, a topographer of Surrey, wrote: "It is with surprise that in this lonely waste one sees, between the Devil's Punch Bowl and the top of the hill, a fine, broad and well-kept road; nor is that surprise diminished when

you come upon it, and find that it is as hard and smooth as any road in a private park can possibly be. There are very few marks of wheels to be found upon it, but abundant traces of sheep. This is the main Portsmouth road, and to any one who knows what the roads are in country places, and even in large towns, throughout the United States, this splendid thoroughfare must seem one of the greatest curiosities in England; for the traffic of London Bridge might be driven along it, and even in this steep and wild country it is kept in the most perfect order. I declare that I stood looking at that road in amazement for pretty nearly quarter of an hour, and I am inclined to think that if I had stayed there till now I should not have seen anybody or anything coming along it in either direction. Will the tide of English summer travel ever again turn towards England itself?"

The description will bring a wan smile to the faces of those who recall this same stretch of road in the heyday of the popular car.

At last came Professor John Tyndall to declare the air to be the best in England, and to add that since he could not go to the Alps, he would go to the next best place. Too many people, he soon found, paid him the sincerest form of flattery, and by the end of the 19th century Hindhead was on the way to 'development', the Broom-Squires vanished. Tyndall died in 1893, and wished that his grave should be no more than a simple mound of heather. The heather did not grow; but it blooms yearly on that blasted heath which popular taste has long transformed into one of the beauty spots of the south of England, much of it now in the safe hands of the National Trust. So do values alter.



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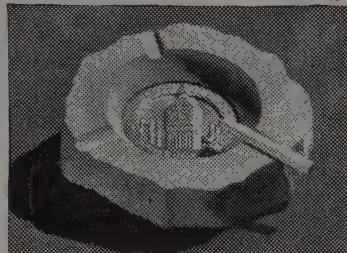
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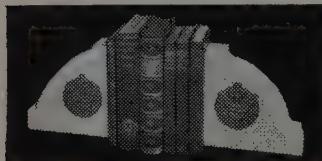


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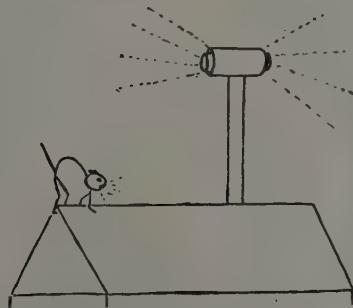
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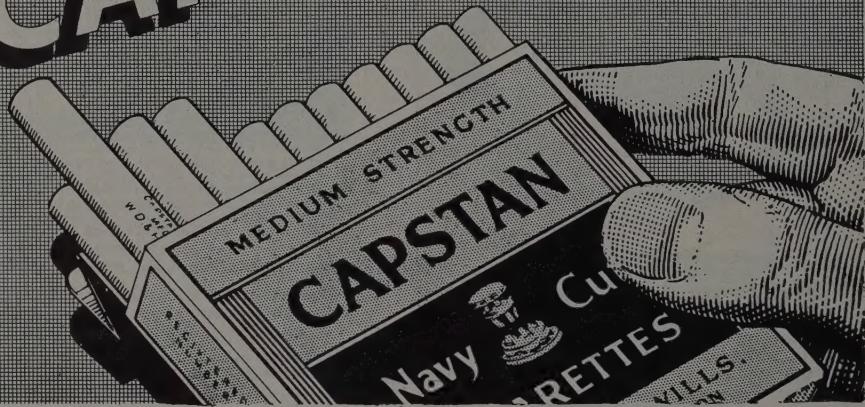
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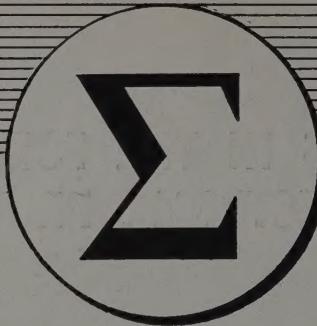
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